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STATE CONTROL OF INDUSTRY IN RUSSIA
DURING THE WAR

ECONOMIC AND SOCIAL HISTORY
OF THE WORLD WAR

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RUSSIAN SERIES

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(Died, December 19, 1925.)

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STATE CONTROL OF INDUSTRY IN RUSSIA DURING THE WAR

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NEW HAVEN : YALE UNIVERSITY PRESS
LONDON : HUMPHREY MILFORD : OXFORD UNIVERSITY PRESS
FOR THE CARNEGIE ENDOWMENT FOR INTERNATIONAL
PEACE : DIVISION OF ECONOMICS AND HISTORY

1928

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CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE
PRINTED IN THE UNITED STATES OF AMERICA

EDITOR'S PREFACE

IN the autumn of 1914, when the scientific study of the effects of war upon modern life passed suddenly from theory to history, the Division of Economics and History of the Carnegie Endowment for International Peace proposed to adjust the program of its researches to the new and altered problems which the War presented. The existing program, which had been prepared as the result of a conference of economists held at Berne in 1911, and which dealt with the facts then at hand, had just begun to show the quality of its contributions; but for many reasons it could no longer be followed out. A plan was therefore drawn up at the request of the Director of the Division, in which it was proposed, by means of an historical survey, to attempt to measure the economic cost of the War and the displacement which it was causing in the processes of civilization. Such an "Economic and Social History of the World War," it was felt, if undertaken by men of judicial temper and adequate training, might ultimately, by reason of its scientific obligations to truth, furnish data for the forming of sound public opinion, and thus contribute fundamentally towards the aims of an institution dedicated to the cause of international peace.

The need for such an analysis, conceived and executed in the spirit of historical research, was increasingly obvious as the War developed, releasing complex forces of national life not only for the vast process of destruction, but also for the stimulation of new capacities for production. This new economic activity, which under normal conditions of peace might have been a gain to society, and the surprising capacity exhibited by the belligerent nations for enduring long and increasing loss—often while presenting the outward semblance of new prosperity—made necessary a reconsideration of the whole field of war economics. A double obligation was therefore placed upon the Division of Economics and History. It was obliged to concentrate its work upon the problem thus presented, and to study it as a whole; in other words, to apply to it the tests and disciplines of history. Just as the War itself was a single event, though penetrating by seemingly unconnected ways to the remotest parts of the world, so the analysis of it must be developed

according to a plan at once all embracing and yet adjustable to the practical limits of the available data.

During the actual progress of the War, however, the execution of this plan for a scientific and objective study of war economics proved impossible in any large and authoritative way. Incidental studies and surveys of portions of the field could be made and were made under the direction of the Division, but it was impossible to undertake a general history for obvious reasons. In the first place, an authoritative statement of the resources of belligerents bore directly on the conduct of armies in the field. The result was to remove as far as possible from scrutiny those data of the economic life of the countries at war which would ordinarily, in time of peace, be readily available for investigation. In addition to this difficulty of consulting documents, collaborators competent to deal with them were for the most part called into national service in the belligerent countries and so were unavailable for research. The plan for a war history was therefore postponed until conditions should arise which would make possible not only access to essential documents, but also the coöperation of economists, historians, and men of affairs in the nations chiefly concerned, whose joint work would not be misunderstood either in purpose or in content.

Upon the termination of the War, the Endowment once more took up the original plan, and it was found with but slight modification to be applicable to the situation. Work was begun in the summer and autumn of 1918. In the first place a final conference of the Advisory Board of Economists of the Division of Economics and History was held in Paris, which limited itself to planning a series of short preliminary surveys of special fields. Since, however, the purely preliminary character of such studies was further emphasized by the fact that they were directed more especially towards those problems which were then fronting Europe as questions of urgency, it was considered best not to treat them as part of the general survey, but rather as of contemporary value in the period of war settlement. It was clear that not only could no general program be laid down *a priori* by this conference as a whole, but that a new and more highly specialized research organization than that already existing would be needed to undertake the Economic and Social History of the War, one based more upon national grounds in the first instance, and less upon purely international coöperation. Until the facts of

national history could be ascertained, it would be impossible to proceed with comparative analysis; and the different national histories were themselves of almost baffling intricacy and variety. Consequently the former European Committee of Research was dissolved, and in its place it was decided to erect an Editorial Board in each of the larger countries and to nominate special editors in the smaller ones, who should concentrate, for the present at least, upon their own economic and social war history.

The nomination of these boards by the General Editor was the first step taken in every country where the work has begun. And if any justification were needed for the plan of the Endowment, it at once may be found in the lists of those, distinguished in scholarship or in public affairs, who have accepted the responsibility of editorship. This responsibility is by no means light, involving as it does the adaptation of the general editorial plan to the varying demands of national circumstances or methods of work; and the measure of success attained is due to the generous and earnest coöperation of those in charge in each country.

Once the editorial organization was established there could be little doubt as to the first step which should be taken in each instance towards the actual preparation of the history. Without documents there can be no history. The essential records of the War, local as well as central, have therefore to be preserved and to be made available for research in so far as is compatible with public interest. But this archival task is a very great one, belonging of right to the Governments and other owners of historical sources and not to the historian or economist who proposes to use them. It is an obligation of ownership; for all such documents are public trust. The collaborators on this section of the war history, therefore, working within their own field as researchers, could only survey the situation as they found it and report their findings in the forms of guides or manuals; and perhaps, by stimulating a comparison of methods, help to further the adoption of those found to be most practical. In every country, therefore, this was the point of departure for actual work; although special monographs have not been written in every instance.

The first stage of the work upon the War History, dealing with little more than the externals of archives, seemed for a while to exhaust the possibilities of research, and had the plan of the history

been limited to research based upon official document, little more could have been done, for once documents have been labeled "secret" few government officials can be found with sufficient courage or initiative to break open the seal. Thus vast masses of source material essential for the historian were effectively placed beyond his reach, although much of it was quite harmless from any point of view. While war conditions thus continued to hamper research, and were likely to do so for many years to come, some alternative had to be found.

Fortunately such an alternative was at hand in the narrative, amply supported by documentary evidence, of those who had played some part in the conduct of affairs during the War, or who, as close observers in privileged positions, were able to record from first or at least second-hand knowledge the economic history of different phases of the Great War, and of its effect upon society. Thus a series of monographs was planned consisting for the most part of unofficial yet authoritative statements, descriptive or historical, which may best be described as about halfway between memoirs and blue-books. These monographs make up the main body of the work assigned so far. They are not limited to contemporary war-time studies; for the economic history of the War must deal with a longer period than that of the actual fighting. It must cover the years of "deflation" as well, at least sufficiently to secure some fairer measure of the economic displacement than is possible in purely contemporary judgments.

With this phase of the work, the editorial problems assumed a new aspect. The series of monographs had to be planned primarily with regard to the availability of contributors, rather than of source material as in the case of most histories; for the contributors themselves controlled the sources. This in turn involved a new attitude towards those two ideals which historians have sought to emphasize, consistency and objectivity. In order to bring out the chief contribution of each writer it was impossible to keep within narrowly logical outlines; facts would have to be repeated in different settings and seen from different angles, and sections included which do not lie within the strict limits of history; and absolute objectivity could not be obtained in every part. Under the stress of controversy or apology, partial views would here and there find their expression.

But these views are in some instances an intrinsic part of the history itself, contemporary measurements of facts as significant as the facts with which they deal. Moreover, the work as a whole is planned to furnish its own corrective; and where it does not, others will.

In addition to the monographic treatment of source material, a number of studies by specialists are already in preparation, dealing with technical or limited subjects, historical or statistical. These monographs also partake to some extent of the nature of first-hand material, registering as they do the data of history close enough to the source to permit verification in ways impossible later. But they also belong to that constructive process by which history passes from analysis to synthesis. The process is a long and difficult one, however, and work upon it has only just begun. To quote an apt characterization; in the first stages of a history like this, one is only "picking cotton." The tangled threads of events have still to be woven into the pattern of history; and for this creative and constructive work different plans and organizations may be needed.

In a work which is the product of so complex and varied coöperation as this, it is impossible to indicate in any but a most general way the apportionment of responsibility of editors and authors for the contents of the different monographs. For the plan of the History as a whole and its effective execution the General Editor is responsible; but the arrangement of the detailed programs of study has been largely the work of the different Editorial Boards and divisional Editors, who have also read the manuscripts prepared under their direction. The acceptance of a monograph in this series, however, does not commit the editors to the opinions or conclusions of the authors. Like other editors, they are asked to vouch for the scientific merit, the appropriateness, and usefulness of the volumes admitted to the series; but the authors are naturally free to make their individual contributions in their own way. In like manner the publication of the monographs does not commit the Endowment to agreement with any specific conclusions which may be expressed therein. The responsibility of the Endowment is to History itself—an obligation not to avoid but to secure and preserve variant narratives and points of view, insofar as they are essential for the understanding of the War as a whole.

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In the case of Russia civil war and revolution followed so closely upon the World War that it is almost impossible for history to measure with any degree of accuracy the effects of the World War itself upon the economic and social life of the country. Those effects were so distorted by the forces let loose in the post-war years and so confused with the disturbances of the revolutionary era that the attempt to isolate the phenomena of the War from the data of civil war and to analyze the former according to the plan followed in the other national series of this collection has been a task of unparalleled difficulty. Over and above the intricacies of the problem and its illusive character, the authors of the Russian monographs have had to work under the most discouraging circumstances and with inadequate implements of research. For those who know the scarcity of the documentary material available, it will be a matter of no little surprise to find, in the pages of this Russian Series, narratives and substantiating data which measure up so well in comparison with those prepared by the collaborators in other countries. The achievement of the Russian Division of the History is, all things considered, the most remarkable section of the entire collection. This is due, in the first place, to the fact that the authors, all of them exiles who live in foreign lands, have not only brought to this task the scientific disciplines of their own special fields but also an expert knowledge drawn from personal experience which in several instances reached to the highest offices of State.

While these volumes in the Russian History constitute so very considerable an achievement, they cannot in the very nature of the case cover with adequate statistical or other specific data many of the problems with which they deal. No one is more conscious of their shortcomings in this regard than the authors themselves. Nevertheless, with inadequate material and under hampering circumstances they have prepared a body of text and a record which, if admittedly incomplete as history, contains at least one element that would otherwise be lost for the future understanding of this great crisis in human affairs, an element which no other generation working from Russian archives could ever supply. We have here the mature comment upon events by contemporaries capable of passing judgment and appraising values, so that over and above the survey of phenomena there is presented a perspective and an organization of

material which will be a contribution to history hardly less important than the substance of the monographs.

The Russian Series was in the first instance planned by one of the most distinguished of Russian scholars who had long been a resident of England, Sir Paul Vinogradoff, Corpus Professor of Jurisprudence at the University of Oxford. To the planning of the Series Sir Paul gave much time and thought. His untimely death in December 1925 prevented him from seeing its fruition or from assuming the editorial responsibility for the texts. Nevertheless, the Series as a whole remains substantially as he had planned it.

J. T. S.

AUTHOR'S FOREWORD

STATE control of industry in Russia during the War was realized mainly through the regulation of the market, that is to say, through the regulation of commerce. The control of the market was the most effective method at the State's command for the regulation of industry. On the other hand, the State regulation of industry had a direct influence on the regulation of the market. Measures such as the control of prices, and the distribution of raw material, of fuel, and of finished articles were primarily measures of a commercial nature, but they had an influence on production, on its increase or decrease, extending their action to the whole of industry, whether working for military defense, or for the needs of the civil population. The present work, consequently, deals with both these aspects, closely interconnected as they were, of the economic policy of the Government during the War.

In describing the economic policy of the Government, however, we have not found it possible to dwell on every branch of the home market. We have examined only those that were closely connected with the work of defense, and in which, for this reason, the regulation of the market was more indissolubly connected with the regulation of production.

Moreover, the Government's policy in respect to the trade in food-stuffs is connected with its general policy of food supply, which forms the subject of a special monograph in this series, and therefore does not fall within the scope of the present work. In the same way, the labor policy of the Government is dwelt on here only insofar as it was directly connected with problems of industrial control. The question as a whole will be the subject of two special studies in this series, dealing respectively with labor supply, and with the Government's policy in respect of wages during the War.

In studying the Government's policy of industrial and commercial control we distinguish two periods: before and after the Revolution. Many of the measures put into practice during the latter period were only the realization of decisions adopted in the former, or the logical consequence of pre-revolutionary measures. But the general political conditions, the ideas that presided over the Gov-

ernment's policy, and the personnel that carried these ideas into practice were so different during the two periods that they have to be studied separately.

The economic policy during the War was of course conditioned by the great characteristics of Russian industry. It cannot be understood without a certain knowledge of these conditions. For this reason we give in an introductory chapter a short sketch of the characteristic features of Russia's economic situation before the War.

During the second period (after March 1917), the economic policy of the Government was strongly marked by the Revolution. For the better understanding of the new policy and of the forces that determined it, we have given a brief survey of the political and social conditions of which it was the outcome.

The Government's economic policy was naturally largely influenced by the pre-revolutionary conditions of Russian life. But the fundamental ideas and aims of the policy regulating industry and commerce were essentially the same in Russia as in other countries. This suggests that an acquaintance with the practice of State control in Russia will furnish considerable material for the study of the general problem of State intervention during the War.

S. O. Z.

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INTRODUCTION

1. *Main characteristics of Russian national economy.*

THOUGH rightly considered an agricultural country, Russia on the eve of the Great War had attained considerable industrial development in the towns and possessed important industrial centers. Agriculture remained the dominant factor, but its combination with a developed capitalistic industry was the outstanding feature of Russia as an economic organism. Though it had acquired a considerable importance, capitalistic industry was of comparatively recent growth, and therefore had no firm foundation in the economic life of the people. Serfdom had survived, and railways had remained nearly unknown until barely sixty years before the outbreak of the War. This inheritance of the first half of the nineteenth century was too recent not to weigh heavily on the economic life of Russia. It was undoubtedly one of the causes that retarded her development, which otherwise might have been smoother and more rapid; for Russia's natural conditions make her one of the largest, and, potentially, one of the most important economic units in the world.

Spread over an area of 8,532,900 square miles, Russia had a population of 170 million inhabitants, which displayed a birth rate (41 per 1,000) that was superior to that of any other European nation, but was counterbalanced by an equally exceptional death rate (25 per 1,000). The arable area of Russia in Europe was 109 million deciatines¹ (294 million acres), 77 million of which belonged to the fertile black-soil belt. The total output of cereals in the whole of the Russian Empire averaged about 7 billion^{1a} puds (112.9 million tons).² Of this total about one-seventh was annually exported. Two-fifths of Europe depended on Russia for its grain. Her southern, southeastern, and Volga provinces were justly reputed the richest of granaries. Fertile meadows and pastures and vast unpopulated districts of steppe supported innumerable herds of cattle, sheep, and horses. They supplied the Russian towns with meat, the

¹ One deciatine=2.7 acres.

^{1a} The term billion as used throughout this monograph is according to American usage: one thousand million.

² One British ton=62 puds.

textile and tanning industries with wool and hides. They also supplied many European countries with meat and live stock.

Russia's wealth was not confined to her productive soil; she was also rich in timber. The forest area was about 500 million deciatines (1,350 million acres). In other words, Russia possessed a quarter of the world's forest reserve. Other agricultural products were cotton, flax, hemp, beetroot, sunflower, tobacco, and silk. These enabled Russia to develop important industries, of which mention will be made later on.

Russia possessed the necessities for developing a great mining and metal industry. An inquiry made under the auspices of the Twelfth International Geological Conference estimated the available quantity of coal in Russia, Europe, and Siberia at 29,672.8 billion puds (476.9 billion tons). The available quantity of coal in the Donetz Basin, covering an area of 17,600 square miles, is calculated at 3,392,386 million puds (54,715 million tons). And the available quantity in the Kuznetsk Basin (Siberia), which has an area of 19,400,000 square miles, is still greater—15,260 billion puds (246 billion tons). Russia also possesses rich oil fields. Before the War she stood second in the world's output of mineral oil. The available quantity of iron ore was estimated at 98 billion puds (1.6 billion tons), with 42 billion puds (677 million tons) of pure iron. The deposits of manganese, platinum, zinc, silver, and copper were not inferior to those of other countries. In respect of some of these Russia takes the first place.

All this natural wealth lay for ages untouched. The immense majority of the Russian people was too closely connected with the soil, which continued to yield good harvests, supplied the population with food, and made it unwilling to undertake work that required heavier labor, special knowledge, technical skill, numerous spare hands, and above all, considerable free capital. For generations only those industries had prospered in Russia that were closely connected with agriculture and cattle-raising. Peter the Great, in his persistent efforts to rouse Russia from her Oriental seclusion, had succeeded in bringing into existence only two branches of industry, *i.e.*, the cloth-making and the iron industries. Both of these were indispensable for the armies of the young Empire. Down to the seventies of the nineteenth century these two industries alone had attained any considerable development.

In western Europe the first half of the century was a period of brilliant mechanical invention, which gave rise to the system of production in large factories and created modern capitalism. But this development of industrial enterprise left Russia unaffected and the evolution of capitalism went hand-in-hand with the survival of pre-machinery forms of production.

The emancipation of the serfs and the consequent introduction of free labor on the land changed the entire conditions of agriculture. The construction of railways increased the capacity of the home market, brought Russia into closer contact with foreign markets, and produced favorable conditions for large-scale production for home consumption. The construction of railways, connecting central Russia with the Black Sea and the Donetz Basin, gave easier access to the black-soil belt, to the Donetz coal, and to the iron of Krivoi Rog.

The railroads connecting Moscow and St. Petersburg with the Baltic provinces were of no less importance. Owing to their higher agricultural development the Baltic provinces rapidly acquired a prominent place in the general commercial life of the country. The Baltic ports became the centers of export and import. These ports connected Russia by the nearest sea route with western Europe. Russian agricultural products could now reach the West, and the Russian peasant became involved in the world's commerce. This favored the introduction of more rational and more intensive agricultural methods. The Baltic provinces became the principal channel of trade between Russia and western Europe and this in its turn contributed to the adoption by Russia of European capitalism.

The same causes contributed to the rapid development of St. Petersburg. It became a manufacturing and commercial center with tens of thousands of workmen, an active stock exchange, the home of stock jobbers and financiers, of business men with a wide European outlook, and of numerous engineers. Its life became agitated, restless, and hurried. New social types came into existence: the financier, the stockbroker, the Europeanized bureaucrat, the St. Petersburg "intellectual," and for the first time in Russia, an industrial proletariat in the true European sense of the word.

In the south, at the other end of the Russian territory, a similar rôle fell to the country north of the Black Sea. Thanks to foreign capital, it was able rapidly to develop its natural resources. An im-

portant mining and metal industry came into existence. A constant stream of peasants, skilled workmen, and engineers poured in from the central provinces of Russia; towns grew rapidly and important industrial centers sprang into existence.

Agriculture in the southern provinces also began to take the form of great commercial enterprises and became dependent for the sale of its products on foreign markets. Unlike the rest of Russia, the Black Sea regions (New Russia, Little Russia, the southeastern and north Caucasian provinces, and the neighboring Lower Volga provinces) remained a wheat-producing and wheat-exporting country. The south became one of the chief sources of the grain supply for the rest of Russia. But after satisfying the demand of the home market there remained a sufficient surplus to permit of a considerable export. The export of grain became one of the economic features of this part of the country and the main influence affecting the purchasing capacity of the peasant masses, the state of the home market, and consequently of all industry. In the general economic system of Russia the south thus acquired a twofold importance; its agricultural products became the principal item of Russian foreign trade and largely determined the purchasing power of the Empire. On the other hand, its heavy industry served to meet the demand of the home market. It supplied all the country with fuel, iron ore, railway material, machinery, and all kinds of iron wares.

The Baltic in the north with St. Petersburg as its center, at one end, and the Black Sea in the south with its industrial centers (Eka-terinoslav, Odessa, Kharkov, Kiev) at the other, embodied the development of Russian industry of a Europeanized and genuinely capitalistic type. Between these two lay the large expanse of agricultural central Russia, where the one manufacturing industry that had attained any considerable importance was the textile industry in all its various branches, but where the peasants still produced for home consumption only; where the rural commune still retained its patriarchal character; where the manors of the gentry still retained the aristocratic traditions of the times of Catharine and Alexander I; where the peasantry suffered from an acute shortage of land; and where in the numerous country towns life went on as of old, in the wooden, snow-clad houses, quiet, uneventful, and monotonous.

Such was the economic and social geography of Russia on the eve

of the World War. But about this time industrial and commercial capitalism had made considerable progress, on which it is now necessary to dwell, though in the briefest outline.

2. *Russian industry before the War.*

a. Russia's industrial development. The twenty-five years preceding the War were for Russia a period of rapid capitalistic and industrial progress of which we will now describe the principal features.

The variation in the number of factories and mills³ and the increase in the number of hands employed and in the value of the output are shown in the following table.

	<i>Number of factories</i>	<i>Number of hands employed</i>	<i>Value of output in thousands of rubles and of pounds sterling⁴</i>	
1890	32,254	1,424,800	1,502,600	(£158,837)
1900	38,141	2,373,400	.....	.....
1913	29,965	2,931,300	5,738,100	(606,671)

The decrease in the number of factories, as we shall see farther on, was accompanied by an increase in output. The rapid growth of Russian industry was closely connected with an increase in the production of raw materials and fuel.

The production of the principal agricultural raw materials—cotton and flax—increased in the following proportions.⁵

³ The figures relate only to those subject to control by Factory Inspectors.

⁴ Throughout this monograph the conversion of rubles into pounds sterling is made in accordance with the following table:

	<i>Rubles for £10.</i>
Pre-war	94.57
July 1-December 31, 1914	111.4
January 1-June 30, 1915	116.7
July 1-December 31, 1915	139.9
January 1-June 30, 1916	155.7
July 1-December 31, 1916	155.3
January 1-June 30, 1917	170.9
July 1-October 29, 1917	255.2

Where the sum in rubles covers a period of two or more years, the approximate average rate of exchange is used as far as possible.

⁵ For a detailed treatment of the conditions of the Russian wool, flax, and linen industries see Sergius N. Tretiakov, *The Textile Industry in Russia during the War*, in this series of the *Economic and Social History of the World War*.

STATE CONTROL OF INDUSTRY

	<i>Production of cotton</i> (in thousands of puds and tons)	<i>Production of flax</i> (in thousands of puds and tons)
1890	3,177 (51.0)	.....
1900	5,841 (94.4)	19,438.6 (313.5)
1913-1914	14,245 (229.7)	31,909.0 (514.7)

The consumption of cotton per head of the population rose from 3.6 to 4.3 pounds, and that of flax from 5.6 to 8 pounds.

The growth of the cotton industry may be seen in the number of spindles in use. In 1913 these were two and a half times as numerous, the amount of raw cotton employed three times as great, and the amount of cotton yarn produced two and a half times as great as in 1890; as appears from the following table:

	1890	1900	1913
Number of spindles	3,457,116	6,090,869	9,112,000
Amount of raw cotton employed (in thousands of puds and of tons)	8,328 (134.3)	16,100 (259.6)	25,713 (414.7)
Amount of cotton yarn produced (in thousands of puds and of tons)	7,300 (117.7)	14,400 (232.2)	19,500 (314.5)

Before the War Russia held the fifth place in the world in the number of spindles employed.

	<i>Number of spindles</i> <i>in use in 1913</i>
England	49,805,768
United States	31,505,000
Germany	10,293,928
France	7,228,583
Russia	7,130,843

In the flax industry Russia took the third place, employing in 1913, 367,864 spindles to Ireland's 951,246 and France's 577,449.

The increase in the flax industry during the fourteen years preceding the War was as follows:

	1900	1911-1912
Number of spindles	337,000	408,693
Number of hands employed		63,456
Amount of flax used (in thousands of puds and of tons)	3,132.5 (50.5)	4,665.5 (75.2)
Output of yarn (in thousands of puds and of tons)	2,042.8 (32.9)	2,930.9 (47.2)

The progress of the metal industry was no less important, and was closely connected with the output of fuel (both hard and liquid). In the twenty years immediately preceding the War, the output of coal in the Russian Empire increased fourfold, and, if we exclude Poland, sixfold, as is shown in the following table.

OUTPUT OF COAL

(in millions of puds and thousands of tons)

<i>District</i>	<i>1894</i>	<i>1913</i>
Donetz	295.8 (4,771)	1,543.8 (24,900)
Dombrowa (Poland)	204.7 (3,301)	426 (6,871)
Siberia	2.5 (40)	125 (2,016)
Ural	17 (274)	73 (1,177)
Moscow	11.8 (190)	18 (90)
Turkestan	0.5 (8)	8 (129)
Caucasus	1.8 (29)	4 (64)
Total	534.1 (8,613)	2,197.8 (35,247)

The output of oil increased, between 1891 and 1913, as follows:

OUTPUT OF PETROLEUM

(in millions of puds and millions of tons)

<i>District</i>	<i>1891</i>	<i>1913</i>
Baku	275 (4.43)	467 (7.53)
Grozny	.....	74 (1.19)
Various	.....	21 (0.33)
Total	275 (4.43)	562 (9.05)

The fact that the output of fuel was almost equal to the demand for home consumption and that a considerable quantity of various metal ores was available, favored the development of the metal industry.

The following table shows the increase in the output of iron during the twenty-five years preceding the War.

OUTPUT OF IRON

(in millions of puds and thousands of tons)

	<i>Ural</i>	<i>Central Russia</i>	<i>South Russia</i>	<i>Total</i>
1890	56.3 (908)	12.3 (198)	23 (371)	91.6 (1,477)
1900	101.3 (1,634)	23.6 (380)	210 (3,387)	335 (5,403)
1913	109.8 (1,771)	32.1 (517)	420 (6,774)	562 (9,064)

Within twenty-five years the output of iron increased sixfold. In the south the increase in output was especially rapid; it increased twentyfold. Home consumption was about 354,000,000 puds (5,709,000 tons), and about 32,000,000 puds (516,000 tons) were exported from Krivoi Rog to foreign countries.

No less considerable was the increase in the output of copper, which rose from 234,000 puds (3,774 tons) in 1893 to 2,057,000 puds (33,177 tons) in 1913. In twenty years it multiplied nearly nine times.

The output of manganese increased between 1895 and 1913 from 12,400,000 puds (200,000 tons) to 76,600,000 puds or 1,235,483 tons. This increase for the several districts was as follows:

OUTPUT OF MANGANESE

(in millions of puds and thousands of tons)

	<i>Caucasus</i>	<i>South</i>	<i>Ural</i>	<i>Total</i>
1895	9.94 (160.3)	2.29 (36.9)	0.17 (2.7)	12.4 (200.0)
1905	20.88 (336.7)	9.23 (148.8)	0.27 (4.3)	30.38 (490.0)
1913	59.19 (954.6)	16.19 (261.1)	1.19 (19.2)	76.57 (1,235.0)

In addition to this, Russia annually produced 3,714 puds (59.9 tons) of gold, 300 puds (4.8 tons) of platinum, 736 puds (11.8 tons) of silver, 84,292 puds (1,359 tons) of lead, and 681,000 puds (10,983 tons) of zinc.

In the middle of the nineties Russian iron works had produced only 2,411,500 tons of pig-iron, iron, and steel. In twenty years their output increased five- or sixfold. The output of pig-iron and of manufactured wares of iron and steel was the following:

OUTPUT OF PIG-IRON, IRON, AND STEEL WARES

	<i>Pig-iron</i>	<i>Iron and steel</i> <i>(manufactured wares)</i>
	<i>(in thousands of puds and of tons)</i>	
1890	59,212 (951.0)	41,591 (670.8)
1900	177,217 (2,858.8)	134,461 (2,164.8)
1913	282,961 (4,563.8)	246,551 (3,976.6)

We must add that, in the south of Russia alone, the production of pig-iron increased during this period from 13.2 to 189.7 million puds (212,900 to 3,059,600 tons). The production of iron and steel

increased twentyfold, from 6.6 million puds (106,400 tons) it went up to 144.2 millions (2,325,000 tons).

In the last ten years before the War the output of the several kinds of semi-manufactured iron goods, and the changes in the proportions produced by the different industrial districts were as follows:

SEMI-MANUFACTURED GOODS OF IRON AND STEEL

(in millions of puds and millions of tons)

	1903	Percentage of total	1913	Percentage of total
South	76.6 (1.23)	54.3	166.6 (2.68)	63.2
Ural	39.9 (0.64)	28.2	55.3 (0.89)	20.9
Central Russia	15.3 (0.24)	10.8	25.9 (0.41)	9.8
North and Baltic Provinces	9.4 (0.15)	6.7	16.1 (0.26)	6.1
Total	141.2 (2.26)	100.	263.9 (4.24)	100.

Owing to this progress the iron industry was able to supply other branches of industry and agriculture with machinery and tools, the railways with the materials that they required, and the population with divers articles of general use.

The two most important factors in this progress of industry were the development of the railway system and the growth of foreign trade. The total length of railway lines was in 1891 only 25,408 versts⁶ or 16,769 miles. Between that date and 1913, 34,789 versts (22,960 miles) were added, and at the moment of the outbreak of the War the total length was 63,563 versts (40,841 miles).

The amount of goods transported by rail increased from 2,593.5 million puds (41,830,600 tons) in 1895 to 7,981 million puds (128,741,900 tons) in 1913. Meanwhile the relative importance of grain as an article of transport decreased from 22 per cent of the total of goods transported in 1895 to 16 per cent in 1913.

The development of railways and railway transport rapidly transformed the national economy. The towns grew and developed. The house-building business flourished. Urban conditions improved. In the villages modern ploughs and iron nails took the place of wooden ones and agricultural machines ceased to be an exception. The de-

⁶ One verst=0.66 mile.

velopment of transport opened up the interior market and increased the circulation of goods and the general turnover, and brought the steppes out of their monotonous existence and made their activity more intense.

Foreign trade grew and, as is shown in the following table, exports between 1891 and 1913 increased 129 per cent and the imports 155 per cent.

FOREIGN TRADE

<i>Annual average</i>	<i>Exports</i> (in millions of rubles and of pounds sterling)	<i>Imports</i>	<i>Total</i>
1881-1891	622 (65.7)	472 (49.8)	1,094 (115.6)
1891-1900	659 (69.6)	535 (56.5)	1,195 (126.3)
1900-1910	1,073 (113.4)	887 (93.7)	1,960 (207.2)
1913	1,520 (160.7)	1,374 (145.2)	2,894 (305.9)

One of the characteristic features of the development of Russian industry was its concentration in a small number of hands, the frequent amalgamation of enterprises into syndicates, cartels, and other forms of combines. In 1913 there were 17,877 enterprises belonging to different branches of industry, employing a total of 2,319,577 workmen, which may be classified, according to the number of hands employed, in the following way:

<i>Enterprises employing</i>	<i>Number of enterprises</i>	<i>Percentage of total</i>	<i>Number of hands</i>	<i>Percentage of total</i>
From 1 to 10 hands	2,366	13.2	17,314	0.7
From 11 to 100 hands	11,900	66.5	432,430	18.3
From 101 to 500 hands	2,717	15.3	616,594	26.6
Over 500 hands	894	5.0	1,253,139	54.4
Total	17,877	100.	2,319,477	100.

This concentration was especially great in the metal industry:

	1890	1910
Number of enterprises	213	171
Output of pig-iron (in thousands of puds and in tons)	55,211 (890,500)	175,294 (2,827.3)
Number of hands employed	196,043	264,281
Total of horsepower	55,640	314,011
Number of blast furnaces	194	154
Output of Martin steel (in thousands of puds and in tons)	15,286 (246,548)	148,086 (2,388,500)

The number of joint-stock companies in the metal industry was 24 in 1890 and 56 in 1913. The capital invested in it rose from 48 million rubles (c. £5,000,000) to 356 million rubles (c. £37,000,000). The value of the plants went up from 66 million rubles (c. £6,900,000) to 510 million rubles (c. £53,900,000). Sixty per cent of all the smelting in the south, and 50 per cent of the output of pig-iron in Russia were concentrated in five large concerns of the south.

In the petroleum industry 20 per cent of the enterprises employed 81 per cent of the total number of hands engaged in this industry.

The iron-working industry was combined into a syndicate *Prodameta* which produced from 80 to 100 per cent of the total output. The petroleum syndicate controlled over 60 per cent of all the output. The copper syndicate *Med* controlled about 90 per cent of the total output of copper. The coal syndicate *Produgol* was a combine of 60 per cent of all the coal enterprises of the Donetz Basin.

The mirror-making industry was monopolized by a syndicate owning four factories. The textile industry was composed of a whole system of syndicates, which in their turn were syndicated around the firm of Knopp in Moscow and St. Petersburg, one of the largest textile concerns.

There were syndicates and cartels in the tobacco, match, distillery, sugar, yeast, railway works, and other industries. The tobacco trust controlled from 60 to 70 per cent of all the tobacco produced in Russia. Shortly before the War there was a question of forming a great metal trust. There were certain conditions which greatly favored the formation of trusts of this kind. One of the principal was the important part played by Russian and foreign banks in the Russian factory industry. The *Prodameta* syndicate is an example. Besides the Russian banks, of which the Azov-Don bank was the chief shareholder, the following foreign banks had invested more or less capital in it: French banks—*Société Générale*, *Crédit Lyonnais*, and others; German banks—*Deutsche Bank*, *Bank für Handel und Industrie*; Belgian banks—*Crédit Général à Liège*, *Société Générale de Belgique*, and others.

The close connection of the same banks with enterprises in different branches of industry favored the amalgamation of enterprises, not only on horizontal but also on vertical lines; that is to say, combinations took place between extractive and manufacturing indus-

tries. Thus, at the beginning of the twentieth century, production on a large scale and concentration of capital in Russian industry had acquired considerable development. Home production had come to take an important part in supplying home consumption and exceeded the import of manufactured goods from foreign countries, as is shown by the following figures:

HOME PRODUCTION

(in millions of rubles and of pounds sterling)

<i>Branch of industry</i>	<i>Big industry</i>	<i>Small industry</i>	<i>Imports</i>
Extractive	520 (54.9)	.....	62 (6.5)
Metal	715 (75.5)	165 (17.4)	373 (39.4)
Textile	1,158 (122.4)	260 (27.4)	147 (15.5)
Preparation of food-stuffs	1,350 (142.7)	120 (12.6)	338 (35.7)
Various	822 (86.9)	520 (54.9)	220 (23.2)
Total	4,565 (482.4)	1,065 (112.3)	1,140 (120.3)

We see here that the production of the big industry alone covers two-thirds of the home consumption, and only one-sixth of the latter is supplied by imports. As for the textile industry, imported textiles amounted to only 9 per cent of the total consumption.

The demand for metals was mainly supplied by home production.

	<i>Home production</i> (in millions of puds and millions of tons)	<i>Consumption</i> (in millions of puds and millions of tons)	<i>Percentage of production</i> <i>to consumption</i>
1890-1899	90.3 (1.45)	127.5 (2.05)	73
1900-1909	168.5 (2.72)	181.2 (2.92)	94
1909-1913	241.7 (3.89)	273.3 (4.40)	88

The supply of Russian cotton for the textile industry became gradually more and more important, as is shown by the following figures.

RAW COTTON UTILIZED

(in thousands of puds and thousands of tons)

	<i>Total</i>	<i>Russian</i>	<i>Percentage</i>	<i>Imported</i>	<i>Percentage</i>
1890	11,735 (189)	3,177 (51)	27	8,558 (138)	73
1900	16,130 (260)	5,841 (94)	36	10,288 (166)	64
1913	23,941 (386)	13,101 (211)	54.5	10,840 (175)	45.5

b. Vulnerable points of Russian industry. Notwithstanding all this industrial progress, and in particular of industry on a large scale, Russia on the eve of the War was still preëminently an agricultural country.

This will be best seen in the following table, where the income of the population is classified according to its source. The figures are for the years 1900-1913 for the 50 provinces of Russia in Europe:

INCOME OF THE POPULATION

(in millions of rubles and of pounds sterling)

<i>Source of income</i>	<i>1900</i>	<i>Percentage</i>	<i>1913</i>	<i>Percentage</i>
Agriculture	2,985.1 (315.6)	45.3	5,630.2 (595.2)	47.5
Forestry and Fishery	626.2 (66.2)	9.5	730.0 (77.2)	6.1
Manufacture	1,402.2 (148.2)	21.0	2,566.6 (271.3)	22.3
Transport	531.2 (56.1)	8.2	1,055.1 (111.5)	8.9
Building	473.1 (50.0)	7.5	842.7 (89.1)	7.1
Commerce	561.9 (59.4)	8.5	981.0 (103.7)	8.1
Total	6,579.7 (695.5)	100.	11,805.6 (1,248.0)	100.

The number of people employed in industry, on the eve of the War, hardly exceeded 3,000,000. And the number of wage-earners in industry, commerce, transport, and various urban professions connected with the industrial life of the nation was not more than 9,000,000, or about one-seventeenth of the total population of the Russian Empire. As appears from these figures, the commercial and industrial development of Russia was still very weak. The small degree of success that attended the Government's economic policy during the War was attributable in a large measure, as will be seen, to this fact.

The regulation of industry, commerce, and transport proved much more difficult in Russia than in countries with a higher capitalistic development. On the other hand, Russian industry was in itself a complex and fragile structure, which was bound to suffer seriously from the War. The Government's economic policy during the War was conditioned by the requirements of Russian industry, on the state of which depended the issue of the War.

Meanwhile certain factors, inherent in Russian industry, rendered it especially sensitive to war-time conditions and placed it in an un-

favorable situation during the War. Perhaps the most important of these was the dependence of several branches of industry on foreign countries. Although Russia exported much more than she imported, the bulk of her exports was composed of agricultural products and only certain kinds of raw materials. The imports, on the other hand, consisted primarily of machinery and raw materials indispensable for her industries, of rolling-stock, and of manufactured articles.

This is shown clearly from a table giving the several classes of imports in pre-war times. During the period 1909-1913 the average annual value of the chief commodities imported was as follows:

IMPORTS

(in millions of rubles and of pounds sterling)

<i>Categories of imports</i>		<i>Percentage of total</i>
(1) Foodstuffs	205.8 (21.7)	18.1
(2) Animal products	11.9 (1.2)	1.0
(3) Raw materials and semi-manufactured goods	554.7 (58.6)	48.7
(4) Manufactured goods	367.3 (38.8)	32.2
Total	1,139.7 (120.3)	100.

How great was the import of some of the most indispensable raw materials is shown in the following table. Thus for the five years from 1909 to 1913 the annual import was:

	<i>puds</i>	<i>tons</i>
Coal	315,750,000	5,092,800
Petroleum and products	51,267,000	826,900
Chemical products	12,082,000	194,900
Cotton	11,732,000	189,200
Agricultural machinery	11,143,000	179,700
Tanning materials	7,424,000	119,700
Machinery (other than agricultural)	5,798,000	93,500
Automobiles	4,650,000	75,000
Wool	3,500,000	56,400
Dyestuffs	3,013,000	48,600
Iron	2,923,000	47,100
Lead	2,893,000	46,600
Pig-iron	2,484,000	40,100
Jute	2,556,000	41,200
Iron and steel articles	1,877,000	30,300
Steel	1,280,000	20,600

With the development of Russian industry the import of raw and semi-manufactured materials increased instead of decreasing. The imports for the five years 1904 to 1908 exceeded by 15 per cent those for the preceding five years, and the imports for the five years 1909 to 1913 exceeded by 45 per cent those for 1904 to 1908.

The Russian mining industry did not keep pace with the manufacturing industry. During the last years before the War the output of raw materials and of fuel, coal, petroleum, iron, etc., was frequently unequal to the demand. This was the reason for the great increase in the imports of these articles.

The textile industry was largely dependent on imported raw materials. It has been shown that the output of raw cotton had increased, but the consumption was also increasing and in 1913 Russian cotton supplied only half the demand. The import of cotton yarn had also increased. The import of flaxen yarn had doubled within the last ten years. The import of foreign wool, which was about 17,000 tons in the middle of the nineties, had reached a yearly average of about 49,000 tons before the War.

The Russian silk industry was largely dependent on imported raw silk. In 1896-1900 the quantity annually imported was 88 million puds (1,400,000 tons), and it rose to 215.5 million puds (3,477,000 tons) in 1912. A still more considerable increase took place in the importation of metal, metal wares, and machinery. Within the period between 1900 and 1912 the import of metals increased from 5.4 million puds (87,000 tons) to 8.3 million puds (134,000 tons), and that of machinery from 4.8 million puds (77,000 tons) to 9.3 million puds (150,000 tons). One-fifth of the demand for copper had to be supplied from abroad. Although Russia possessed rich deposits of zinc, the output was only 700,000 puds (11,000 tons), of which 6,000 puds came from Poland and about 70,000 puds from the Caucasus. This was equivalent to only one-third of the zinc imported. The same with lead. The Russian output was only 100,000 puds (1,600 tons), whereas the import was 4 million puds (64,000 tons). The chemical industry was insignificant and the amount of the various chemical products imported was several times as great as that of the home production. The demand for agricultural machinery in 1913 reached the figure of 102 million rubles (£10,800,000). Only two-thirds of it were supplied by home industry.

Russian industry was dependent not only on foreign goods, but also on foreign capital. Apart from the large amount of imported goods, indispensable for the nation's consumption and for the various branches of its industries, the weakness of Russian industry manifested itself in the large and growing figures representing foreign capital invested in it. Thus for example in the period from 1856 to 1894, 37 foreign companies were registered with a total capital of 134 million rubles (£16,000,000). In the period from 1895 to 1902, 90 companies with a capital of 253 million rubles (£26,700,000), and between 1903 and 1913, 99 with a capital of 188 million rubles (£17,700,000), were registered. On the eve of the War, out of a total of 2,163 companies with an aggregate capital of 4,000 million rubles (£424,000,000), 327 with a capital of 1,343 million rubles (£142,000,000) were foreign companies. Thus nearly one-third of all the joint-stock capital invested in Russian industry was of foreign origin. In the mining and metal industries foreign capital amounted to a total of 990 million rubles (£104,000,000), which was one-half of all the capital employed in these industries. In the chemical industry the proportion of foreign capital invested was about one-third (57 million rubles out of 142 million rubles). In the electrical industry two-thirds of the capital invested belonged to foreigners (152 million rubles out of a total of 203 million rubles).

The very distribution of Russian foreign trade between the several frontiers was unfavorable for war conditions. The greater part of the goods imported into Russia came by way of the western land frontier—about 48.4 per cent of all the imports. Second in importance was the Baltic frontier (about 38.5 per cent). The Black Sea ports accounted for about 7.4 per cent, Finland for 3.7, and the Asiatic frontier, including Vladivostok, for about 11.5 per cent.

In exports, on the contrary, the Black Sea ports (39 per cent) and the Baltic ports (30 per cent) took the first place. These figures are easily explained by the fact that in the grain trade, which was the staple of Russian exports, the sea routes play a leading part. For the imports, on the other hand, which came chiefly from Germany, the land route was the nearest. But coal, steel, machinery, and chemical products came mostly by way of the Baltic. Coal and machinery took this route because they were intended for the northern provinces, in particular for Petrograd; the chemical products were also for the textile industry of Petrograd.

Thus Russian industry communicated with the foreign markets almost exclusively by way of the western frontiers. The northern, southern, and eastern frontiers accounted for but a small part of the total imports.

Another peculiarity of Russian industry was that its chief centers were situated on the borders of the country. As shown above, the greater part of the output of coal came from the Donetz Basin (seven-tenths of the total output, if we include, and nine-tenths if we exclude, Poland). The great distance separating the Donetz Basin from the Petrograd district, an important industrial center, made the supplying of this district with Donetz coal difficult and expensive, the whole transport having to be effected by rail. Thus the north had to be supplied with foreign coal, and this is the reason for the considerable amount of coal imported, which in 1913 alone came to nearly 500 million puds (8 million tons).

The chief deposits of iron ore, likewise, were either in the south (Krivoi Rog) or in the Ural Mountains, where consequently most of the iron foundries were also situated. The south produced 67 per cent of the total output of pig-iron and 55 per cent of the steel. The Ural produced 20 per cent of the pig-iron and 17 per cent of the iron and steel. The output of the central district amounted to only 4.2 per cent of the pig-iron and 8 per cent of the iron and steel. The amount of pig-iron produced in the northern and Baltic provinces was insignificant. Pig-iron as well as coal had to be supplied from the south. The output of iron and steel in the north was not more than one-twentieth of the total.

Poland's part in the output of coal and iron was considerable. Her coal was not of so much importance for Russian industry, as it was nearly all consumed locally, but Polish iron and steel supplied not only Polish, but also Russian industry, and constituted about 11 per cent of the total output of the Empire.

The copper, lead, zinc, gold, and platinum industries were all located in remote districts—the Ural, Siberia, and the Caucasus. The Caucasus was also the only source of manganese ore and of petroleum. Russian cotton was brought from the distant central Asiatic dominions. In the output of flax, wool, and silk the chief providers were the border provinces. Flax came mostly from the northwestern provinces. Two-fifths of the chemical industry was concentrated in Poland and the Baltic provinces.

These two features of Russian industrial development were destined to have a great influence on industry during the War. The supply of raw products and machinery depended largely on foreign import. On the other hand, the geographical distribution of labor was very wide, and in consequence the normal operation of industry depended on the efficiency and regularity of the railways. The least break in their service became a source of difficulties to industry, for without a regular supply of raw materials it came to a standstill. Of all the goods transported by rail, coal came first, and amounted to one-fifth of the total. Considering that coal formed three-fifths of all the fuel consumed in Russia, the importance of a regular supply is obvious. All the industries depended on the regular supply of coal. The cotton industry was dependent in even a greater degree on transport, as all the cotton came from remote districts and every irregularity in communications affected the regularity of production.

All these conditions of Russian industrial activity must be kept in view if the difficulties with which Russia had to cope from the very outset of the War are to be understood, the difficulties, that is to say, which arose when the foreign supply was abruptly curtailed and the transport by rail disorganized.

Russian industry was characterized by numerous other peculiar features. The consumption of the chief industrial products was very low even before the War. It is true that the income per head of the population, during the fifteen years preceding the War, had risen from 66 to 101 rubles (£6 18s. to £10 12s.). But as has been shown above, the chief source of income was agriculture. The consumption of metal per head was 55 pounds. The consumption of pig-iron per head in Russia was one-twentieth of the consumption in America, one-eighth of the consumption in England, and less than one-tenth of that in Germany. The consumption of sugar was one-fourth that in the United States and in England and half as large as in Germany. The normal reserve of goods per head of the population was: metals, 9 pounds; coal, 360 pounds; iron ore, 194 pounds; cotton, 2.8 pounds; flax, 5.4 pounds; textiles, 3.8 pounds. Owing to the insignificant dimensions of the domestic consumption and of the reserve of goods, every decrease in production inevitably made it exceedingly difficult to meet the demands of the population and lowered the standard of consumption still further.

In Russia, as in other countries, the War disturbed the balance between the several branches of industry. This had an unfavorable effect on the home market, leading to a decrease in the circulation of goods, which in its turn influenced prices and the purchasing power of money, and lowered the standard of living for the great mass of the population.

Russian industrial conditions were further influenced by the peculiar character of the class of industrial workers. The number of factory hands, as we have shown, was small in relation to the total population of the Russian Empire. The fact that the great majority of the people lived in the rural districts, and were dependent on agriculture, made the influx of workingmen into the towns comparatively insignificant and, what is especially noteworthy, seasonal. Part of the workmen, for example, in the textile industry, were not a proletariat in the European sense. They were half-workmen, half-peasants. Their ties with the land were not severed. The textile workmen of the Moscow district took every opportunity of returning to their villages to work in their fields, which continued in their possession. In the Moscow district these absences from the mills were periodical; in spring the works were either completely or partially stopped for a certain period. In the mining industry of the Donetz Basin the supply of labor was also seasonal. In spring the men left to work in their fields, and did not return till autumn. But in the Donetz Basin as well as in the Ural district, and in the petroleum fields of Baku, the supply of labor was unfavorably affected by another factor—the wretched housing conditions, which made the men unwilling to remain there long, and restricted the influx of labor. If, moreover, we take into consideration the low productivity of labor, and the consequent costliness of it, notwithstanding low wages, it will become apparent that as regards labor-supply Russian industry was very unfavorably situated.

3. The phases of the War.

The War which suddenly broke out on the 1st August 1914 (new style)⁷ produced in Russia, as it did in other countries, various economic fluctuations. A diagram of the economic conditions that

⁷ All dates in this monograph are given in accordance with the Russian calendar, unless stated otherwise.

prevailed there during the War would present a succession of sharp depressions and rises. The first period, from the moment of the commencement of military operations up to October-November 1914, was a period of panic, confusion, and depression in trade. But this confusion soon gave way to a period of animation and revival. This second period continued up to the spring of 1915. High prices and extensive orders placed by the Government stimulated industry. This was, however, a period of a total want of harmony between the state of industry and the requirements of the War.

There were but slight manifestations of the economic policy of the State. The requirements of the army at the front and the needs of the population were left to the spontaneous effects of the "natural law" of supply and demand. The State interfered in economic life only in so far as it was an important purchaser and consumer and was interested to see that its war requirements were supplied in the shortest time and at the lowest cost. But towards the spring of 1915 it was becoming obvious that the activity of industry was not in itself sufficient to supply the growing war demand. It was evident that if industry were left to itself and remained unorganized, it would not be able to satisfy the calls made upon it.

Moreover, this activity was unevenly distributed between the several industries, which were variously affected by the new conditions. Certain industries encountered serious difficulties in increasing their output—difficulties due to lack of coördination in national production. The necessity for such coördination became every day more apparent. Various groups of the population approached the Government with the request that it should take upon itself the direction and control of industry. Public initiative on the one hand, and the new economic policy of the State on the other, were now directed towards the regulation and development of production in the several industries. The third period is characterized by the conscious and systematic action of certain public bodies and of the Government in regulating industry. This activity resulted in a decided increase in output and a more satisfactory supply of the means of production. During this period the activity of industry reached its highest point. It lasted from the autumn of 1915 to the autumn of 1916.

The intervention of the State and of certain public organizations had a decidedly beneficial influence on economic life. It led to the coördination of the various branches of industry, removed obstacles

that were merely accidental or due to absence of organization, made the whole country realize the supreme importance of the extraordinary economic problems set by the War, and secured its coöperation in solving the problem of economic organization. But a succession of factors, which will be discussed in detail below, set a limit to this activity. The intervention of the State—even if we leave out of account social and political questions which at this period began to play an important part—could favor the growth of industrial production only up to a certain point. It could regulate the distribution of the existing resources of the country to better advantage, but it could not call into existence in so short a time and under the unfavorable conditions of War, productive forces that had remained undeveloped or were inadequately developed before the War. It could not create new contingents of skilled labor, new capital and machinery, nor could it materially increase the output of raw materials, a result that could only be attained by long years of previous preparation.

The efficiency of State intervention was hampered by the insufficient development of the productive forces of the country, which characterized Russia before the War. And when, under the pressure of the enormous demands of the War, these forces began to fail, industrial activity declined in the same proportion. In the second half of 1916 industrial conditions entered their fourth phase—a period of decreasing production—and in January and February 1917 this depression began to assume a menacing form. But the greater the industrial depression, the more intense became the intervention of the State.

One of the aims of the Revolution that broke out in February 1917 was to strengthen this intervention and to make it more rational. State intervention assumed a new aspect and set itself new and far-reaching problems. It became more rigorous. But the reduced productive forces of the country suffered heavily from the shocks of the Revolution. To the unfavorable war conditions were added the new revolutionary conditions. But as industrial depression increased and the action of the State was intensified, so the discrepancy between its efforts and the results achieved became more pronounced. The attempts to increase production met with diminished success. Down to 1917 the Government's economic policy had been solely influenced by the economic demands of the War. After the

Revolution new considerations came into play, considerations that had no connection with the War and were of a general theoretical character.

This is a rough summary of the fluctuations in the national economy, and in industry in particular, during the War, and of the part taken by the State in their regulation. We shall presently analyze in greater detail the several stages of the economic war policy of the Government. But before doing so we must turn our attention to the vicissitudes that industry underwent during this period.

PART I

INFLUENCE OF THE WAR ON NATIONAL ECONOMY

CHAPTER I

INITIAL CONFUSION AND SUBSEQUENT REVIVAL

As has already been said, the War that broke out on the 1st August 1914 produced at the outset in Russia, as it did in all the countries involved in it, a certain economic embarrassment. The peculiarity of this first embarrassment was that the causes that produced it were just the opposite of those which at a later period brought about a serious economic crisis. The earlier crisis was caused by the loss of the foreign markets. The closing of the frontiers stopped trade with foreign countries. This created unfavorable conditions in those industries which relied chiefly on export for the sale of their products.

The government authorities and industrial leaders did not at first realize the magnitude of the demands which the War was about to impose on national industry. Their first concern was how to find markets for agricultural and industrial products.

According to a report of the Minister of Finance, neither the great consumption of the army, nor trade with neutral and allied countries, would suffice to absorb all the exportable grain. Butter-making, poultry-farming, pig-raising were all suffering from the loss of the foreign market that followed on the outbreak of hostilities.

The sugar industry was to a considerable extent paralyzed by the loss of nineteen factories, which were in the zone occupied by the enemy. The closing of the frontiers would also greatly hamper the flax industry, the export of which held an important place in Russian economics.

The timber trade likewise was embarrassed by the closing of the frontiers. The sawmills were compelled to curtail their output. The lumber drives had to be held up and the logs left on the banks of the rivers, or submerged, to keep them for future use.

If on the one hand the suspension of export at the beginning of the War had an unfavorable effect on certain industries, other industries and the population in general suffered from the opposite cause—from insufficiency of supply, due to the disorganization of the market and absence of imports.

The urban population, knowing that war always produces a

scarcity of products and a rise in prices, began to lay in stocks of provisions. The demand for certain goods, mainly foodstuffs and commodities of prime necessity, was greatly increased. The reserves in the stores proved insufficient and were rapidly exhausted. The prices of these articles showed a tendency to rise, but not yet in any threatening degree. The growth of prices was also partly due to the disorganization of railway transport, which in the first months of the War was deflected from the service of commercial transport to that of war requirements. The transport of goods and their normal distribution were hampered, and the existing commercial machinery was unable to satisfy the growing demand. The difficulties of transport, and the shortage of hands in the towns, due to the mobilization, also contributed to the growth of prices.

The rise in the prices of certain articles of prime necessity during the first months of the War is shown in the following table.¹

MOSCOW

(Prices in rubles and in shillings and pence)

	July	December
	Rubles	Rubles
Eggs per 1,000	25.00 (52s. 10d.)	37.00 (66s. 5d.)
Butter per pud	15.87 (33s. 7d.)	22.12 (39s. 8d.)
Sugar per pud	5.55 (11s. 9d.)	5.80 (10s. 5d.)
Calico (arshine) ²	0.12 (3s. —)	0.14 (3s. —)

PETROGRAD

Eggs per 1,000	23.68 (50s. 1d.)	27.13 (48s. 8d.)
Butter per pud	16.40 (34s. 8d.)	22.36 (40s. 2d.)
Sugar per pud	5.80 (12s. —)	6.10 (11s. 11d.)
Calico (arshine)	0.09 (2½d.)	0.11 (2¾d.)

Industry and commerce, banks, municipal works, were all faced with the shortage of workers and its natural consequence—embarrassment in the regular operations of business. The population manifested a great demand for cash of which the banks held a reserve. Owing partly to this and partly to general financial considerations the banks sharply curtailed their credits. It is true that this measure brought the reserves of currency rapidly into circula-

¹ See Appendix XX.

² One arshine=0.7 yard.

tion, but on the other hand it limited the commercial turnover and brought confusion into trade.

The outbreak of war coincided with the approach of the autumn season, usually the period of the greatest animation in the textile trade, which had its center in Moscow. July and August was the time when the provincial purchasers met and business transactions were concluded for the ensuing year. The outbreak of war brought fewer dealers together and limited the quantity of orders. Prices fell in the first weeks of the War and the mill-owners, with a view to keeping up prices, diminished their production by 50 per cent.

"At the present moment," wrote the *Bulletin of the Society of Manufacturers and Mill-owners of the Moscow Region* (*Izvestia Obshestva zavodchikov i fabrikantov Moskovskago raiona*) "the cotton-printing and dyeing works are working only four days a week and produce only half their usual output. The limited reserve of dyestuffs, the cessation of import, and the absence of production of these materials in our country are sources of anxiety to our industrial organizations and compel the manufacturers to restrict their production." In September the decrease in the manufacture of textiles attained 25 per cent in the central region and 30 per cent in the Baltic provinces.

The chemical industry, in the first period of the War, worked under serious difficulties. According to the information of the Society of Manufacturers and Mill-owners of the Moscow Region, the chemical factories could not work regularly without foreign raw materials. Certain of these products, such as lead, saltpeter, menthol, and others, were liable to requisition by the State. Some of the factories found means of producing certain chemicals which, before the War, came from abroad. But owing to the general confusion of the market, the industry as a whole experienced grave difficulty in procuring the articles it needed, especially lead.

The representatives of the metal industries, who met to discuss the new situation, came to the conclusion that with the uneasy conditions prevailing in the money market, no considerable increase in the demand for metal goods was to be expected. When it was suggested that orders would probably be forthcoming from the State and the railways, the two principal consumers, this was met with scepticism. "We do not know," wrote the leading paper of the industrials, "how large will be the orders of the Government, but in any case they are

not likely to compensate us for the decrease in the general demand. We certainly must not expect, in the near future, to be able to bring up the output of the metal industry to the level of pre-war times."

On the whole, at the beginning of the War, the attention of business men was mainly directed to prices and demand. No one realized how long the War was to last, and what a prodigious acceleration of output it would require from industry. Commercial circles were at that time concerned with what seemed to them the inevitable outcome of the disorganization of all business life—the decrease in demand.

Such was the frame of mind during the first period of the War. But we must add that this period of confusion and uncertainty was short. Later on the War inflicted one blow after another on Russian industry. Its vitality was impaired, war-time conditions sapped its productive forces and ate up its capital. But the difficulties of the first period had nothing in common with the later developments.

These difficulties were felt at the very outset, but were of short duration. The serious consequences came later, only in the second year of the War. The ruinous conditions that prevailed during the latter part of the War had their origin in the peculiar circumstances in which national industry had to work, and which culminated in a complete revolution of all the economic, social, and political life of the country. The difficulties of the first period were but the reflex of a momentary confusion, which was brought about by the first superficial shocks of the War; they were soon dispelled, and gave place to new conditions and a new state of mind. The ordeal through which industry was to pass was concealed from the observer by the confusion of the first weeks of the War. Similarly the change that took place in the autumn of 1914 gave a false idea of coming developments.

Towards the end of 1914 the textile trade began to return to its normal state. Buyers of textile fabrics again appeared on the Moscow market, money flowed in, credit was reëstablished. This animation was caused primarily by the enormous orders placed by the State for the needs of the army, which sent up the prices of all textiles. Moreover, the occupation of Poland, which used to provide large quantities of textiles for the home textile market, brought about a shortage of supplies. Down to the spring of 1915 the textile industry experienced a period of great prosperity. The existing

mills were unable to meet the demand, and were obliged to turn over part of their orders to small undertakings that up to that time had been on the verge of ruin, and numerous new mills sprang up.

All the reserve stock, which had previously been unable to find a sale, was now rapidly bought up. According to a report of the Ministry of Finance, factories working for the State did not stop work on Sundays or holidays. On week-days they worked from 5 a.m. to 10 p.m. Great activity also reigned in the small mills that were fed by surplus orders from the great factories.

"This last September," to quote the report of an inquiry carried out by the Society of Manufacturers and Mill-owners, "which is usually a dead season in the Moscow industrial district, has been quite satisfactory. The decrease in sales in the provinces has been compensated by the huge orders for the army. Trade has lost all traces of the depression which it might have been natural to expect at this juncture. The retail trade is beginning to feel the effects of the three months' decrease in output. The stock intended for the towns and for the peasant population will shortly be exhausted, and the warehouses are no longer overcrowded with goods as they used to be. In consequence of heavy demands from the Army Supply Department there is hardly any stock on hand." And the report sums up by saying that "the anxiety so recently felt of overproduction, if not quite dispelled, is at least in a fair way to be so."

According to the official information of the Ministry of Finance, the state of industry, as a whole, in this second period of the War, was as follows. Two or three months after the outbreak of hostilities the textile industry began to show activity, which went on increasing until the end of the year. It manifested itself in the increase in the number of hands employed, in the restriction of non-working days, in the introduction of night and overtime work. This activity was due to the large orders received from the Government, from the Red Cross, and from the All-Russian Zemstvos and Town Unions.

In the flax industry production was similarly stimulated by the State orders for sacks and canvas. The number of spinning- and weaving-mills was increased, as was also the number of hands employed. The conditions of the market for linen goods were favorable. The prices of sacks were doubled, from 18-20 copecks (4.5d.-5d.) it went up to 42 copecks (10.5d.) for an old sack, and 34 copecks (8.5d.) to 65 copecks (1s. 3d.) for a new one. In spite of these high

prices the factories were unable to satisfy the demand. Intense activity also reigned in the cloth mills, due likewise to orders for the army. The felt mills also had plenty of work in supplying the army with felt winter boots (*valenki*).

The huge orders placed by the State for the requirements of national defense set all the departments of the metal industry working at high pressure. Factories producing machinery, boilers, rolling-stock, guns, rifles, cartridges, etc., were all busy. To supply these demands they were forced to enlarge their workshops, to build new departments, and take on more hands. And it must be remarked that the demand for labor greatly exceeded the supply. The increase of output was chiefly noticeable in the great works. Cottage industry also flourished, more capital was employed, and in some places new manufactures were introduced, such as that of barbed wire, wire-cutters, surgical instruments, and sappers' tools.

In the food industry, the flour mills were kept busy supplying the requirements of the army. The great demand for bread for the army and the hospitals gave work to the yeast industry. The tobacco factories were kept busy supplying the army with tobacco and cigarettes. In the leather industry, the great tanneries, the manufactories of sheepskin coats, boot factories, and saddleries were all intensely active.

Under the influence of high prices and the extraordinary demand, the fears that had been entertained of a decline of trade gave place to a feeling of security. "The market remains firm," says the above-mentioned report, "the continual rise in the price of cotton yarn is considered a guarantee of the present high prices, and a symptom of a still greater rise. The future of the textile industry is full of promise." The great demand and high prices led to the enlargement of existing plants and the construction of new mills; it produced an influx of capital and a rise in profits.

The ideas previously current on the nature of economic crises prevented people from realizing the inevitable effects of the War on industry and on the whole nation. Keen demand and high prices had always been regarded as the main symptoms of a revival of trade, and as these two symptoms were present, many economists spoke of the condition of industry as promising. This view found expression in many official documents. Meanwhile, as the War dragged on, these favorable factors were gradually counteracted by the general dis-

location of the national economy. As this state grew worse, the industrial situation also became adverse. The attention of the public and of the Government became concentrated on the struggle with these hostile circumstances. But in order to understand thoroughly the character of this struggle and its fluctuations, we must first examine the causes of these unfavorable conditions which the War imposed on industry.

CHAPTER II

DESTRUCTIVE INFLUENCE OF THE WAR

1. *Conditions of industrial activity.*

THE following causes were to have an influence on industry during the War: (1) the state of trade with foreign countries; (2) the conditions of transport; (3) the state of the labor market; (4) the supply of raw materials and fuel; (5) the prices of raw materials and fuel, *i.e.*, cost of production; (6) the prices of manufactured goods. These factors, of course, affected equally the industries working for the requirements of national defense and those supplying the requirements of the population at large. Both these branches of industry were adversely affected by the War.

2. *Isolation of Russia from the world market.*¹

The importance for Russia of its intercourse with foreign markets has been indicated in the preceding chapters. Russian industry, in particular, was greatly dependent on the imports of foreign raw materials. This indispensable intercourse was carried on chiefly across the European, and particularly the western, overland frontier and the Baltic ports. The War closed the Russian frontier on three sides, *i.e.*, the western overland, the Baltic, and the Black Sea routes. Part of the Asiatic frontier (Persia) also became impracticable. The only two points left open were the port of Vladivostok on the Pacific coast and Finland in the north.

Before the War only about 10 or 15 per cent of the total imports entered through the Asiatic frontier, and Finland held even a less important position, as only about 4 per cent entered by that route. Neither of these routes was adapted for trade on a large scale, the first, because of its great distance from the important commercial centers, which caused serious delay in delivery and raised the price of the goods. The import through Finland was inconvenient because it could only be effected by a roundabout way *via* England and the

¹ For a detailed treatment of this subject see Baron Boris E. Nolde, *Russia in the Economic War*, in this series of the *Economic and Social History of the World War*.

Scandinavian States. It must also be added that the effective capacity of the railways, both to the east and the north, was inadequate. The necessity of a large importation made the Government turn its attention to the port of Murmansk, which, owing to its being free from ice all the year round, might prove of great value. But before this port could acquire any practical importance, it was necessary to build a railway connecting it with the general system of railways in the Empire; and its capacity, owing to natural causes, could not be expected to be great. The three frontiers that had now assumed so great a consequence as the only means of keeping up communication with western Europe were ill adapted for commercial purposes. They were provided neither with warehouses, nor with the necessary commercial machinery. The route from England to Norway, and from thence to the Murman coast was far from safe from the German submarines, which were constantly patrolling the North Sea and the Arctic Ocean. Such were the difficulties with which Russian trade was confronted owing to the War.

It is natural, therefore, that foreign trade should have shown a sharp decline. The following figures indicate the fluctuations of imports and exports between the period 1909-1913 and the year 1917.

IMPORTS²

	<i>Total value of trade via all frontiers (in millions of rubles and of pounds sterling)</i>	<i>Value of trade via western frontier and Finland</i>	<i>Weight of trade via all frontiers (in millions of puds and of tons)</i>
1909-1913	1,139 (120.4)	1,003 (106.0)	686 (11.0)
1914	1,098 (106.6)	939 (91.1)	649 (10.4)
1915	1,139 (88.7)	691 (53.8)	240 (3.8)
1916	2,682 (170.3)	1,717 (110.4)	418 (6.7)
1917	.... .	1,966 (92.3)	178 (2.8)

EXPORTS

1909-1913	1,501 (158.7)	1,422 (150.3)	1,501 (24.2)
1914	956 (92.8)	866 (84.0)	814 (13.1)
1915	402 (31.4)	314 (24.4)	150 (2.4)
1916	579 (37.1)	476 (30.6)	148 (2.3)
1917	.... .	464 (21.8)	60 (0.9)

² There are no official figures for the year 1917 for the value of the total trade. That is why the value of imports and exports across the western fron-

As appears from the above table, imports across the European frontier had considerably decreased in 1915, both in value and in quantity. Their value had fallen to about seven-tenths, and their weight to about 35 per cent of the pre-war figures. Already four-fifths of the imports were coming *via* the Asiatic and northern frontiers.

In 1916, the state of trade had greatly changed. The value of imports now exceeded that of pre-war times by about 70 per cent, but this increase was due entirely to the rise of prices on the world market. The weight was slightly less than double that of 1915, yet it amounted to only three-fifths of that recorded before the War. In 1917, though the value increased still further, the weight attained only about one-quarter of the pre-war figure. In the course of the last three years of Russia's participation in the War, her imports were equivalent to about two-fifths of her imports in the three years that preceded the War.

The items of import over the European frontier had also undergone an important change.

tiers (Finland and Murman coast included) are given separately. The figures of the weights apply to all frontiers.

Rubles have been converted into sterling according to the rate of exchange prevailing at the time of payment.

IMPORTS

*In rough categories of goods
(in millions of rubles and millions of sterling)*

	<i>Foodstuffs and live stock</i>	<i>Percentage</i>	<i>Raw and semi- manufactured materials</i>	<i>Percentage</i>	<i>Manufactured articles</i>	<i>Percentage</i>	<i>Imports of war materials</i>	<i>Percentage</i>	<i>Total</i>	<i>Percentage</i>
1909-1913	218 (23.0)	19.2	555 (58.6)	48.7	367 (38.7)	32.1	...	..	1,140 (120.3)	100
1914	212 (20.5)	19.3	521 (51.5)	47.5	365 (35.4)	33.2	...	..	1,098 (107.4)	100
1915	194 (14.3)	17.0	500 (39.1)	44.0	446 (36.0)	39.0	...	..	1,140 (89.4)	100
1916	128 (8.2)	7.5	582 (31.1)	33.9	689 (44.4)	40.1	318 (20.5)	18.5	1,717 (104.2)	100
1917	116 (6.0)	6.0	511 (23.9)	26.0	746 (35.0)	38.0	592.9 (27.8)	30.0	1,966 (92.1)	100

These figures show that the absolute value of raw and semi-manufactured materials had but slightly decreased, but in their relation to the total the decrease was considerable. Before the War they formed nearly one-half of the total imports; in 1916, they amounted to one-third; and in 1917, to only one-quarter. We must also keep in view that of the total value shown in the above table, 318 million rubles' worth of goods in 1916 and 593 million rubles' worth in 1917 were government imports to meet the requirements of the army. On the other hand the import of manufactured articles rose both absolutely and relatively. Of this, however, machinery constituted only a small proportion.

We can form an idea of the decrease in the supply of raw materials and machinery from the following table.

IMPORTS

(In thousands of puds and of tons)

	1909-1913	1915	1916	1917
<i>I. Raw and semi-manufactured materials</i>				
(1) cotton	11,732 (189.2)	8,483 (136.8)	752 (12.1)	301 (4.8)
(2) jute	2,556 (41.2)	359 (5.7)	38 (0.6)	44 (0.7)
(3) wool	3,437 (55.4)	1,301 (20.9)	605 (9.7)	189 (3.0)
(4) cotton yarn	307 (4.9)	67 (1.1)	76 (1.2)	159 (2.5)
(5) raw silk	189 (3.0)	83 (1.3)	64 (1.0)	30 (0.5)
(6) rubber and gutta-percha	530 (8.5)	824 (13.2)	493 (7.9)	247 (3.9)
(7) saltpeter	2,088 (33.6)	3,904 (62.9)	2,022 (32.6)	14 (0.2)
(8) tanning materials	7,424 (119.7)	1,723 (27.8)	1,646 (26.5)	299 (4.8)
(9) fertilizers	24,211 (390.5)	203 (3.2)	1.6 (0.25)	.....
<i>II. Chemicals</i>				
(1) chemical and medicinal products	12,082 (194.8)	6,623 (106.8)	6,031 (97.6)	2,220 (35.8)
(2) dyes	3,013 (48.6)	818 (13.2)	1,240 (20.0)	587 (9.4)
<i>III. Fuel</i>				
(1) coal	315,750 (5,092.7)	40,235 (647.3)	57,930 (934.3)	46,024 (742.3)
(2) coke	40,305 (651.7)	274 (4.4)	1,055 (17.0)	996 (16.0)
<i>IV. Machinery</i>				
total	16,941 (273.2)	3,731 (60.2)	5,382 (86.8)	4,844 (78.1)
<i>including</i>				
(1) industrial	7,525 (121.4)	3,040 (49.0)	4,444 (71.6)	2,616 (42.2)
(2) agricultural	7,295 (117.6)	209 (3.4)	391 (6.3)	1,726 (27.8)

Russian industry, as has been shown in the preceding pages, depended very greatly on foreign raw materials and machinery. Without these it was unable to meet the requirements of the home market. This made its position all the more difficult, when during the War Russia was practically cut off from foreign sources of supply. The supply of raw and semi-manufactured materials and of machinery declined. The little that remained was in a great measure absorbed by the ever-increasing needs of the army.

The isolation of Russia could not fail to react on the conditions of its industry. The latter was able to satisfy neither the enormous demand of the army, which grew with the extension of military operations, nor the requirements of the population, in anything like an adequate degree.

3. *The fuel problem.*

The consumption of fuel before the War is shown by the following figures:

<i>Consumption</i>	<i>Wood</i> (<i>In thousands of cubic sakhines and of cubic feet</i>)		<i>Coal</i> (<i>In millions of puds and of tons</i>)	<i>Petroleum</i>	<i>Peat, etc.</i>
Domestic	37,100	(12,725,300)	166	(2.6)	10 (0.16) 38 (0.63)
Industrial	4,000	(1,372,000)	1,634	(26.2)	190 (3.06) 275 (4.44)
Railways	1,070	(366,010)	580	(9.3)	110 (1.77)
Shipping	300	(102,900)	60	(0.9)	70 (1.13)
Total	42,470	(14,566,210)	2,440	(33.0)	380 (6.12) 313 (5.07)

The aggregate of various kinds of fuel consumed annually (calculated in terms of coal) amounted to about 7,400 million puds (119 million tons). Of this total, wood formed more than half (58 per cent), coal about one-third (32 per cent), petroleum 7 per cent, and peat, etc., 3 per cent. More than half (53 per cent) of the total amount of fuel was consumed for domestic use, one-third (33 per cent) for industrial purposes, railways consumed about 11.3 per cent and shipping 2.7 per cent.

The different groups of consumers used different kinds of fuel. Thus most of the wood, about three-quarters, was used for domestic purposes, wood forming about 95 per cent of the total fuel so consumed. The greater part of the coal (about two-thirds of the total

amount) was consumed by industry, and this coal amounted to about 67 per cent of all the fuel used for industrial purposes. The railways consumed about a quarter of the coal. But the importance of coal in their consumption was as great as in the preceding group, for it formed about 68 per cent of the total fuel consumed by them. As to petroleum, it was chiefly used for industrial purposes (40 per cent), railways used about 28 per cent, and shipping 20 per cent. About 11 per cent of the fuel consumed by industry, and about 20 per cent of that used by the railways consisted of petroleum.

Petroleum held a more important place as fuel for shipping, where it formed about half of the total fuel consumed. Thus we see that manufacture and railways depended chiefly on coal, which came, as we have said, almost exclusively from the Donetz Basin. This fact was to have an important influence on Russia's fuel supply during the War.

We must now consider the effects produced by the War on the fuel supply. The supply of fuel for industry and the railways was a question of the utmost importance, as the timely supply to the front of the necessities of war, and the maintenance of the normal industrial life of the nation, depended chiefly on these two factors.

The imports of foreign coal, as has been shown, fell to an insignificant quantity. This decrease was of no great importance, as the imported coal had been chiefly used in those regions that were occupied by the enemy. The loss of the Dombrowa Basin was also but slightly felt, as the output of this basin was consumed locally.

From the outbreak of war and down to 1917, the output of coal was decidedly on the increase, as is shown by the following figures:³

³ See Appendices XXI and XXVIII; cf. Sokolov, *Russian Coal-Mining Industry during the War*, in this series of the *Economic and Social History of the World War*.

OUTPUT OF COAL

<i>Regions</i>	<i>1913</i>	<i>1914</i>	<i>1915</i> <i>(in millions of puds and of tons)</i>	<i>1916</i>	<i>1917</i>
Donetz	1,544 (24.90)	1,713 (27.63)	1,626 (26.22)	1,752 (28.26)	1,510 (24.35)
Ural	74 (1.19)	84 (1.35)	78 (1.25)	92 (1.48)	98 (1.58)
Moscow	18 (0.29)	19 (0.31)	28 (0.45)	42 (0.67)	45 (0.72)
Caucasus	4 (0.06)	4 (0.06)	3.8 (0.06)	4 (0.06)	3.4 (0.05)
West Siberia	54 (0.87)	60 (0.96)	78 (1.27)	82 (1.32)	94 (1.51)
East Siberia	72 (1.16)	88 (1.42)	92 (1.48)	118 (1.90)	113 (1.82)
Turkestan	8 (0.13)	9 (0.14)	10 (0.16)	11 (0.18)	10 (0.16)
Total	1,774 (28.60)	1,977 (31.87)	1,915.8 (30.89)	2,101 (33.87)	1,873.4 (30.19)

The annual consumption of coal in Russia before the War amounted to 2,662 million puds, or 43.6 million tons. Even if we deduct the consumption of the region occupied by the enemy, and allow for the increase of output, the mining industry was unable to meet the demand on the pre-war scale.

But during the War the consumption of fuel by the railways greatly increased. Thus all kinds of fuel (calculated in their equivalent in coal) consumed by the railways was 852 million puds (13.69 million tons) in 1913; 894 million puds (14.37 million tons) in 1914; 1,019 million puds (16.22 million tons) in 1915; 1,172 million puds (18.84 million tons) in 1916; and 1,194 million puds (19.19 million tons) in 1917.

This increase in consumption called for an increase in the supply of coal and of other kinds of fuel. But as the output of coal before the War attained only 74 per cent of the demand, the extra supply could not be furnished in this way, and there had to be some restriction of industrial consumption. There was a limit, however, to the extent to which this restriction could be carried. Therefore the increase in demand for fuel had to be satisfied chiefly by petroleum and by wood.

In 1916, the railways consumed 775 million puds (12.4 million tons) of coal as against 580 millions (9.3 million tons) consumed in 1913, and 167 million puds (2.7 million tons) of petroleum as against 110 million puds (1.7 million tons) used in 1913. The consumption of wood rose from 1,070 thousand cubic sakhines (377 million cubic feet) in 1913, to 1,460 thousand cubic sakhines (510.8 million cubic feet) in 1916. In 1917, the consumption of coal fell to 751 millions (12.07 million tons), the consumption of petroleum was the same, and the consumption of wood rose to 1,905 thousand sakhines (653 million cubic feet).

The consumption of fuel for industrial purposes fell from 2,434 million puds (39.2 million tons) in 1913 (all kinds of fuel calculated in equivalents of Donetz coal) to 1,717 millions (27.6 million tons). The change in the relative proportions of different kinds of fuel was the following:

OUTPUT OF FUEL

	<i>Coal</i> (In millions of puds and tons)	<i>Petroleum</i> (In millions of puds and tons)	<i>Wood</i> (In thousands of cubic sakhines and millions of cubic feet)
1913	1,634 (26.3)	190 (3.06)	4,000 (1,372)
1916	835 (13.4)	253 (4.11)	4,364 (1,496)

The output of petroleum during the War rose in the following proportions:⁴

OUTPUT OF PETROLEUM

(In millions of puds and tons)

	1913	1914	1915	1916	1917
Baku	467 (7.53)	424 (6.84)	450 (7.26)	477 (7.69)	402 (6.48)
Grozno	74 (1.19)	98 (1.58)	88 (1.41)	103 (1.66)	108 (1.74)
Others	21 (0.33)	27 (0.43)	30 (0.48)	22 (0.35)	20 (0.32)
Total	562 (9.05)	549 (8.85)	568 (9.15)	602 (9.70)	530 (8.54)

Moreover, with the decrease of export there remained a certain reserve. But as the consumption in the country by the factories and railways increased, this reserve was rapidly exhausted. Thus in Astrakhan, in 1914 there were shipped for the interior 222 million puds (3.58 million tons); in 1915, 310 million puds (5 million tons); and the same amount in 1916. The consumption of petroleum by the railways amounted to two-thirds of the whole output of the Empire.

Great hopes were laid on wood. But wood was the staple fuel for domestic consumption, and with the decrease in output of wood the problem of supplying the population with fuel necessarily became critical. At the outbreak of the War, the mobilization took away a large number of workers from the lumber trade. But under the influence of the great demand for fuel, and as it was impossible to satisfy it with mineral fuel, there ensued a considerable revival in this industry. However, the generally unfavorable conditions produced by the War, the difficulty of providing food for the workers in the forests, the scarcity of horses, and the disorganization of transport, soon made themselves felt. The preparation of firewood was greatly reduced, and the hopes of using it to make up for the deficiency in

⁴ See Appendices XXIII, XXXI, and XXXII.

mineral fuel were disappointed. In 1916, the quantity of firewood that was to have been delivered was 1,057,000 cubic sakhines (362 million cubic feet); in reality only 440,000 cubic sakhines (150 million cubic feet) were prepared and brought out of the woods, or in other words only 40 per cent of the quantity anticipated. In 1917, it was estimated that the absolute minimum of fuel necessary for industrial purposes was 3,300 million puds (53 million tons), but only 2,240 millions (36 million tons) were delivered, or 68 per cent of that minimum.

4. *Insufficiency of raw materials.*

The supply of raw materials presented similar difficulties. Here again, as in the mining and petroleum industries, there was an increase in the output of certain commodities. The output of cotton, flax, and wool increased in some localities, in others it remained stationary. If the demand had remained at the pre-war level industry might have been fully supplied. But during the War the demand for textiles grew to such an extent that the factories were obliged greatly to develop their production, and even so the increase in the supply of raw material did not keep pace with the increase in the demand.

With the declaration of War imports of foreign cotton decreased greatly. The quantity imported in 1913-1914 was 13.5 million puds (218,000 tons); in 1914-1915 it was 7.3 millions (118,000 tons); and 7 millions in 1915-1916. The supply of Russian cotton, however, owing to good crops in the central Asiatic dominions and in the Caucasus, was growing. These crops yielded 13 million puds (209 thousand tons) in 1912-1913; 14.2 millions (229,000 tons) in 1913-1914; 15.6 millions (251,000 tons) in 1914-1915; and 20 millions (322,000 tons) in 1915-1916. Further, the stocks of cotton at the mill, in warehouses, and at the railway stations were in 1915 and 1916 very considerable, and greatly exceeded those of the preceding years.

In 1912-1913 the total amount of raw cotton supplied to the textile industry was 24 million puds (387,000 tons); in 1913-1914 it rose to 27.7 millions (447,000 tons); in 1914-1915 it fell to 24.6 millions (397,000 tons); but rose to 29.2 (471,000 tons) in 1915-1916. The mills, however, were producing on so great a scale, and

the demand had increased to such an extent, that the cotton market was disorganized, and an exceptional rise of prices ensued; moreover, the distribution of raw cotton between the individual mills became irregular.

Difficulty was experienced also in satisfying the demand for cotton yarn—the foreign supply, owing to the decrease in imports, fell from 288,000 puds (4,600 tons) in 1913, to 187,000 (3,000 tons) in 1914, and to 67,000 (1,100 tons) in 1915.

In the linen industry there seemed to be no reason to expect any shortage in the supply of flax, as the greater part of it, which before the War used to be exported, now remained in the country, and was available for home consumption. But here again the demand became so great that this extra quantity was far from sufficient to satisfy it.

The output of flax fell in 1914, as compared with that of 1913, from 31.9 million puds (518,000 tons) to 26.2 millions (422,000 tons), whereas the demand went up to 90 million puds (1,400,000 tons) owing to the requirements of the army. A fresh difficulty arose in 1915, for the cultivation of flax was rapidly diminishing. In 1913, the area under flax had been 1,493,000 deciatines or 4,031,060 acres, in 1914 it declined to 1,422,000 deciatines (3,839,000 acres), and to 1,353,000 (3,643,000 acres) in 1915. The whole crop of 1915 yielded only from 17 to 19 million puds (270 to 300 thousand tons). In 1916, the area under flax was further reduced. This was the result of a whole series of causes: the shortage of labor, a scarcity of seed, its consequent high price, the fear of invasion, the scarcity of live stock, and the costliness of machinery. The decrease in the cultivation of flax varied in that year, according to the district, from 6 to 14 per cent.

In the meantime, the demand for flax for home manufacture was 14 million puds (225,000 tons), while the export amounted to 9 millions (145,000 tons) making a total of 23 million puds. The export of flax was rendered necessary partly by financial considerations, in order that the value of the ruble might be maintained, partly by the needs of the Allies. The Russian supply of flax was unable to cope with the demand, and the production of the linen industry had to be restricted. The number of spindles fell from 373,500 in 1913-1914, to 368,000 in 1914-1915. The production of flaxen yarn fell from 265,600 to 241,000 puds (3,900 tons). The

number of looms was reduced from 14,943 to 14,592. The result of this was a decrease in the supply of linen goods on the home market.

Similar conditions affected the woolen industries. "With the increased production of the mills," says an official document of the Ministry of Finance, "there arose a great demand for raw material. But serious difficulties stood in the way of satisfying this demand. In Rostov-on-Don, which was the center of the fine-wool market, and which represented about 90 per cent of the total home production, the clip of 1913 amounted to 958,000 puds (15,400 tons); in 1914, it was 1,025,000 (16,500 tons); and in 1915, 1,100,000 (17,700 tons). This quantity, however, was much below the demand. In 1913, the woolen industry had consumed 5 million puds (80,000 tons). On the other hand, the imports of foreign wool had fallen from 3.8 million puds (61,000 tons) in 1913, to 3 millions (48,000 tons) in 1914, and to 1.3 millions (20,900 tons) in 1915. Thus the whole supply of wool that could be counted on in 1915 amounted to 2.4 million puds (38,700 tons), or about one-half of the pre-war consumption."

Such were the conditions under which the textile industries had to work, and these were branches of industry of prime importance to the defense of the country. The metal-smelting and the metal-working industries found themselves even worse situated.

To begin with there was a marked decline in the output of iron ore. The chief deposits of iron ore were in the south, and as the output of this district was much reduced, there ensued a general decrease in the supply of iron on the home market. The extent of these changes is shown by the following figures.

IRON ORE

(In millions of puds and of tons)

	<i>Total output</i>	<i>Output of the south</i>	<i>Supply of iron ore from the south to the bal- ance of the Russian home market</i>
1913	562.4 (9.07)	420.1 (6.77)	354.7 (5.72)
1914	460.5 (7.42)	326.8 (5.27)	266.4 (4.29)
1915	331.4 (5.34)	248.1 (4.01)	266.1 (4.29)
1916	.....	335.2 (5.40)	310.8 (5.01)
1917	320.5 (5.16)	232.0 (3.74)	191.0 (3.08)

Before the War the consumption of iron averaged about 180 million puds (2.89 million tons). During the years immediately preceding the War, the demand had increased to such an extent that the import of foreign iron became an important item, reaching in certain years 40 million puds (645,000 tons). Consequently the Russian output was inadequate even to meet the demand of pre-war times.

The shortage of copper was quite as serious. Before the War the home consumption amounted to 2,423,000 puds (39,000 tons). The home output supplied only 2,057,000 puds (33,000 tons), *i.e.*, it covered about 80 per cent of the demand. Foreign copper was imported to the amount of 376,000 puds (6,000 tons). In the course of the War the output fell to 1,950,000 puds (31,400 tons) in 1914, to 1,587,000 puds (25,600 tons) in 1915, to 1,305,000 puds (21,000 tons) in 1916, and to 1,200,000 (19,000 tons) in 1917. Thus the output for the period 1914-1917 showed a deficit of 3,650,000 puds (58,800 tons), as compared with consumption even at the pre-war rate.

An increase in the importation of foreign copper became necessary. It attained 4,782,000 puds (77,000 tons). It was only owing to this that Russian industry was enabled to satisfy the demand for the front.

The decrease in the production of the iron industry, which resulted from the shortage of raw materials, is shown by the following table (Poland excluded).

OUTPUT OF PIG-IRON AND SEMI-MANUFACTURED IRON GOODS

(In millions of puds and of tons)

	<i>Pig-iron</i>	<i>Semi-manufactured goods</i>
1913	257 (4.14)	264 (4.27)
1914	249 (4.01)	272 (4.38)
1915	225 (3.63)	251 (4.05)
1916	232 (3.74)	261 (4.21)
1917	190 (3.06)	202 (3.27)

The embarrassment caused by this decrease in output will be readily understood if it is remembered that the metal industries were those on which the War entailed the greatest demand.

The same difficulties hampered the leather industry. The produc-

tion of soles was dependent chiefly on the heavy hides imported from South America and Australia, to the number, before the War, of 1,200,000. The imports of hides and of ready-made soles were sufficient to meet the annual demand for 40 to 50 million pairs of boots, of which 2,000,000 were for the army.

In the course of the first three years of the War, the deficit in hides amounted to 3,000,000, equivalent to 60,000,000 pairs of boots. At the same time, the demand for the army increased fifteen-fold—rising from 2,000,000 to 30,000,000 pairs of boots. In other words, the demand for the army alone nearly equalled that of the whole country before the War. The home industry was unable to cope with this demand, owing to the decrease in live stock, the shortage of tanning stuffs, and the general disorganization of industry.

Unfortunately complete and accurate figures of the output of all the various industries have not yet been ascertained. It is not the intention to furnish in this work exhaustive data on the subject; this is the less necessary that the individual industries are to be dealt with in special monographs. The foregoing data are designed merely to give an idea of the difficulties that beset Russian industry in respect of the supply of raw materials.

5. *Disorganization of railway transport.*⁵

The importance of railways as a factor in the economy of a country is enhanced in war-time. It is of a twofold character.

The efficient working of the railways is a necessary condition of the success of military operations, and on it, on the other hand, depends the normal commercial intercourse of the country. This double rôle exposes them in war-time to a double danger. They are in peril at the front, and also in the rear. Today, when rapid mobilization at the beginning of a war, and later on the rapid displacement of masses of troops and stores from one section of the front to another, may mean the difference between success and defeat, the efficiency of the railway service is an element of prime importance for the success of military operations.

⁵ For a detailed treatment of this problem see Michael B. Braikovich, *Russian Transportation during the War*, in this series of the *Economic and Social History of the World War*.

The deflection of railway transport to the requirements of the front necessarily diminishes its activity in the rear. But diminished activity in the rear means disorganization of commercial circulation, isolates one market from another, affects the stability of prices, and leads to a decrease in the productiveness of industry. In its turn, the decrease in industrial activity, and primarily the decrease in the supply of fuel, reacts on the efficiency of the railways. The metal industry, the output of machinery, and of rolling-stock—everything declines, and this in turn makes the problem of the maintenance of railway efficiency increasingly difficult.

The Russian railway transport service suffered severely from this double influence of war-time conditions. First the mobilization, then the great extent of the two fronts, the western and the southeastern (in the Caucasus), and the large masses of troops that had at times to be rapidly concentrated, the enormous amount of transport for the army—all this taxed the capacity of the railway service to the utmost. It is true that the total number of passengers and quantity of goods carried by the railways diminished, but in consequence of losses in rolling-stock the mileage of each individual train increased.

The length of Russian railways diminished in 1914 from 42,400 miles to 39,300. But in the period 1914-1916, new railways were built, extending over 5,509 miles, of which 843 were constructed by the State, and 4,666 by private companies.

The total military traffic had gone up from 51,127 million pud-versts to 326,478 millions in 1914 and to 741,076 millions in 1917. The intensity of the work that the railways had to perform, can be estimated by the fact that the engine mileage went up from 564 million versts⁶ (376 million miles) in 1913 to 642 millions (428 million miles) in 1915. And the mileage of carriages and trucks went up from 8,110 million versts (5,406 million miles) to 13,497 millions (8,998 million miles).

The large amount of rolling-stock required for the conveyance of men and stores for the army could be obtained only by restricting the ordinary traffic. Thus we find that the daily mileage of trains per verst was as follows:

⁶ One verst=0.66 mile.

	1913	1914	1915	1916	1917
Total for all trains:	19.2	19	20	19	17.4
<i>Including</i>					
Passenger	8	7	6	6	6
Goods	10	9	9	8	8
Army	0.2	2	4	4	3
Commercial	1	1	1	1	0.4

The amount of ordinary goods conveyed by rail fell from 1,864 million puds (30.1 million tons) in 1913 to 1,157 millions (18.6 million tons) in 1917, while the military stores conveyed rose from 152 million puds (2.4 million tons) to 2,625 millions (42.3 million tons).

The difficulties experienced by the railways in maintaining ordinary traffic, while the army took up so much of their capacity, had many causes. One of these has already been mentioned—the shortage of fuel. Another factor that greatly hampered communication during the War was the inadequate development of the railway system. One of its peculiarities was that it was much more developed in the western than in the eastern provinces. To the east of the line St. Petersburg-Moscow-Kharkov-Sebastopol the effective capacity of the railways was only one-third what it was to the west of it. This made communication difficult between the fertile regions of the east and the rest of Russia, when the greater part of the rolling-stock was occupied with military traffic. During the first years of the War, moreover, all the east—Siberia, Turkestan, and the southern provinces of the Volga Basin—were connected with the rest of Russia by only one bridge over the Volga. Part of the traffic had to go a long way round by Viatka, but the effective capacity of the northern lines was not great. The same may be said of the Murman line, constructed during the War (in 1916). Thus the conveyance of foodstuffs and raw materials from the eastern provinces was carried on under most unfavorable conditions. Nor were the railways adapted for supplying the north with Donetz coal.

The restricted capacity of the railways was largely monopolized by the requirements of the front. An inevitable consequence was a further curtailment of the conveyance of those goods which were essential to the normal economic life of the country.

The amount of the various categories of goods traffic during 1913 to 1917 is shown in the following figures.

VOLUME OF GOODS TRAFFIC BY RAIL

(In millions of puds and of tons)

	1913	1914	1915	1916	1917
Breadstuffs	1,023 (16.50)	1,082 (17.45)	847 (13.63)	868 (13.98)	187 (3.01)
Coal	1,721 (27.76)	1,408 (22.71)	1,270 (20.41)	1,430 (23.06)	1,118 (18.03)
Lumber and firewood	1,185 (19.11)	999 (16.11)	786 (12.63)	835 (13.45)	716 (11.54)
Miscellaneous	4,116 (66.38)	3,153 (50.85)	2,473 (39.75)	2,290 (36.93)	4,802 (77.45)
Total	8,045 (129.75)	6,642 (107.12)	5,376 (86.41)	5,423 (87.42)	6,823 (110.03)

These figures clearly show the effects of the disorganization of the railway service, the most serious being the impossibility of supplying the urban population with a sufficient quantity of food, and the factories and towns with fuel.

The intense work of the railways caused the rolling-stock and other railway materials to wear out rapidly. In the first two years of the War the construction of rolling-stock in the Russian workshops increased, and reached the following figures:

	<i>Engines</i>	<i>Carriages and trucks</i>
1913	654	24,610
1914	762	28,204
1915	917	38,353
1916	600	.....
1917	420	13,000

But this increase did not compensate for the excessive wear and tear due to the intensity of the work, for which the railways were not adapted. During the first two years of the War, it is true, when the Russian armies were advancing in the enemy's country, the railways were able to make this good to a certain extent, by rolling-stock taken from the enemy. The renewal and construction of carriages and trucks were comparatively easy, but less so as regards engines, and already in 1916 the number of engines had considerably decreased, as is shown by the following table:

<i>On December 31st of</i>	<i>Number of engines</i>	<i>Total Carriages and trucks</i>	<i>Number of trucks</i>
1913	18,662	378,977	354,122
1914	20,071	539,549	507,671
1915	20,731	575,611	542,194
1916	16,837	463,419	438,140
1917	9,201	174,346	166,684

The renewal of railway material, especially rails, after a small increase in 1914 underwent a sharp and constant decrease.

(In thousands of puds and of tons)

	<i>Output of tires</i>	<i>Output of rails</i>
1913	3,141 (50.6)	39,402 (635.5)
1914	4,666 (75.2)	43,122 (695.5)
1915	5,664 (91.3)	34,240 (552.2)
1916	4,709 (75.9)	24,878 (401.2)
1917	2,717 (43.8)	11,881 (191.7)

Thus we see that towards the end of the second year of the War the railway service was seriously disorganized owing to the following causes:

(1) the diversion of a great part of the service to meet the requirements of the front;

(2) the wearing out, and to some extent the loss, of rolling-stock and other material.

It was found impossible to maintain a normal service in the interior, and this had the most serious consequences on the general economy of the country.

6. *State of the labor market.*⁷

All industries suffered severely from the reduction in the supply of labor, and the deterioration in its quality. There were repeated mobilizations all through the War. On each occasion large numbers of men were taken away. The great mass of recruits came from the peasant class, but the ranks of factory workmen were also thinned.

The total number of men under arms was

1914	6,485,000
1915	11,695,000
1916	14,440,000
1917 (1st half)	15,070,000

In relation to the total male population of working age these numbers were equivalent to 15 per cent in 1914, 25 per cent in 1915, 36 per cent in 1916, and 37 per cent in 1917.

Of these fifteen million men taken from their habitual work, ten million were peasants. The number of men of working age of the peasant class was reckoned at 27,000,000. The withdrawal from the land of 37 per cent of these made it impossible to supply from the ranks of the peasantry the deficiency of labor in the manufacturing industry, for agriculture itself suffered from a shortage of hands.

Efforts were made to fill up this deficiency in other ways. Refugees were engaged; but of these the greater part were either assigned to agricultural work, or to work at the front. The number of refugees

⁷ For a detailed treatment of this subject see William T. Braithwaite, *Working Classes in Russia during the War*, in this series of the *Economic and Social History of the World War*.

was about 3,327,000, of whom 265,550 were men, and 1,041,380 were women.

Then again prisoners of war were employed. The total number of these in October 1916 was 1,545,000 of whom 545,000 were employed in agriculture, 500,000 were working at the front, digging trenches and making roads, and 500,000 were employed at the rear, preparing fuel, building railways, working in factories, and in all kinds of public work.

In October 1916 about 115,000 prisoners of war were taken from agricultural work and employed in the preparation of fuel, chiefly in the forests.⁸ On the 1st July 1917 there were 376,400 men at the disposal of the Ministry of Commerce and Industry. They were distributed as follows:

	<i>Men</i>
Metal industry	167,200
Coal-mining industry	92,400
Forests and peat-cutting	90,600
Preparation of mineral materials	7,500
Preparation of cotton, hemp, flax, and jute	2,100
Preparation of wood	4,800
Electrical works and shipping enterprises	3,300
Chemical industry	1,600
Paper-making and printing industries	1,400
Preparation of foodstuffs	1,400
Preparation of animal products	1,300
Preparation of wool	600
Various enterprises	2,200
	<hr/>
Total	376,400

Oriental labor was employed to a certain extent, chiefly in Siberia and on the Volga; and lastly a certain number of mobilized workmen were retained to work in their factories.

All these measures partially tided over the labor crisis in some of the industries. In particular, the employment of prisoners in the coal mines of the Donetz Basin served to counteract in a great measure the periodical deficiency in labor, due to the seasonal migration of the miners.

⁸ *Vestnik Finansov (The Financial Messenger)* (Nos. 31 and 41, 1917); N. D. Kondratév, *Rinok khlebov i ego regulirovanie za vremya voini (The Grain Market and Its Control during the War)*, Moscow, 1922.

But all these measures were insufficient to compensate entirely the reduction in the supply of labor. The crisis would have been still more acute if women and children had not taken the place of the men who had gone to the front.

The total number of workers employed in the factories under the supervision of the Factory Inspectors⁹ was 2,319,577 in 1913; in 1914, it was 1,960,860; in 1915, 1,922,572; and in 1916, 2,093,862. These figures do not give a correct idea of the facts, as they do not include the State-owned factories, which did a very large proportion of the munition work, nor the mines; the latter were supervised by the mining inspectors.

Among the State-owned factories, working for the front, the most important were the ironworks, and it was in these that there was the largest increase in the number of hands employed. This can be seen from the following table (the figures include the State-owned factories, as well as private enterprises):

<i>Employment in the metal industry</i>		
	<i>Number of hands employed</i>	<i>Percentage in relation to 1913</i>
1913	280,626	100
1914	295,797	105
1915	343,850	122
1916	427,602	152
1917	452,374	161

A similar increase took place in the coal-mining industry:

<i>Employment in the coal-mining industry</i>		
	<i>Monthly average of hands employed</i>	<i>Percentage in relation to 1913</i>
1913	168,000	100
1914	186,000	110
1915	181,000	108
1916	235,000	139
1917	280,000	166

The absence of so great a number of men at the front gave rise to the employment of women and boys in great numbers. These began

⁹ Only privately-owned works were subject to the control of the Factory Inspectors, and only such as had power machinery. Accordingly all mining works and State-owned factories were exempt from their supervision.

to play an important part in industry, and their comparative inefficiency could not fail to be reflected in the output.

The part taken by women, prisoners of war, and refugees in the mines of the Donetz district is shown in the following table:

	<i>Monthly average of hands employed for 1916</i>	<i>Workers employed 1st January 1917</i>
Men liable to conscription	103,495	126,526
Prisoners of war	44,707	75,464
Women	11,831	12,185
Boys and children	16,892	19,283
Refugees	2,562	2,403
Chinese and Persians	547	1,467
	<hr/>	<hr/>
	180,034	237,328
Total of all hands employed	247,180	291,397

Thus on 1st January 1917 workers drawn from other regions constituted almost two-fifths of the whole number employed.

The extent to which women and children were employed in the whole of Russia may be seen in the table, Appendix XXVI, page 342. The increase in their employment was especially marked in certain districts where large factories predominated. Thus in the Moscow industrial region the percentage of different categories of workers showed the following variations:

*Percentage of different categories of workers to the total
number employed in the Moscow district in all
kinds of manufacture.*

	<i>1914</i>	<i>1915</i>	<i>1916</i>	<i>1917</i>
Men	50.1	47.6	41.2	37.1
Women	39.4	41.3	45.8	48.7
Boys	8.9	9.5	11.1	11.6
Children	1.6	1.6	1.9	2.6
	<hr/>	<hr/>	<hr/>	<hr/>
	100.0	100.0	100.0	100.0

In the cotton industry

Men	40.7	38.2	31.4	25.9
Women	49.5	51.4	55.9	60.6
Boys	8.8	9.2	10.8	11.0
Children	1.0	1.2	1.9	2.5
	<hr/>	<hr/>	<hr/>	<hr/>
	100.0	100.0	100.0	100.0

In the metal industry

Men	82.7	81.1	76.1	69.7
Women	7.4	8.2	12.5	18.6
Boys	9.6	10.3	10.8	10.6
Children	0.3	0.4	0.6	1.1
	<hr/> 100.0	<hr/> 100.0	<hr/> 100.0	<hr/> 100.0

The percentage of women and children employed in the Petrograd district was about the same:

Percentage of different categories of workers to the total number employed in Petrograd

<i>Industries</i>	<i>Men</i>		<i>Women</i>		<i>Boys</i>	
	<i>1913</i>	<i>1917</i>	<i>1913</i>	<i>1917</i>	<i>1913</i>	<i>1917</i>
(1) Preparation of fiber	30.1	18.7	57.8	68.7	12.1	12.6
(2) Paper-making and printing	65.1	41.3	19.8	45.3	15.1	13.4
(3) Woodworking	93.4	71.8	3.7	20.8	2.9	7.4
(4) Metal industry	89.9	73.0	3.2	20.3	6.9	6.7
(5) Preparation of minerals	74.1	58.9	16.2	20.6	9.7	20.5
(6) Preparation of animal products	68.8	46.3	22.1	42.8	9.1	10.9
(7) Preparation of food-stuffs	56.4	22.3	35.1	65.9	8.5	11.8
(8) Chemical works	57.3	46.8	40.1	46.7	2.6	6.5
(9) Various industries	93.3	76.9	5.5	20.3	1.2	7.8
Average	<hr/> 65.7	<hr/> 58.5	<hr/> 25.3	<hr/> 33.3	<hr/> 9.0	<hr/> 8.2

In some branches of industry the number of women employed increased twofold, threefold, and sevenfold, and towards the end of 1916 less than half the total of workers employed were men. Before the War the number of men employed had been two-thirds of the total number of workers, on an average for all Russia. The increase in the number of women and children employed was greatest in those factories that were working for the front.

In the metal industry, the chemical and the animal-product industries male labor predominated before the War, attaining to seven- or even nine-tenths of the total of hands employed. Towards the end of 1916 the number of women and children employed in these industries was at least one-third of the total.

The decrease in male labor had undoubtedly a great influence on

the productivity of labor. The output of the factories in the second year of the War showed a considerable decline. The productivity of labor in the three industries that were of the greatest importance both to national defense and to the general economic life of the nation was as follows:

	<i>Coal mines of Donetz Basin: annual output per worker</i>	<i>Iron smelting: monthly output of worker (in puds and tons)</i>	<i>Iron mines in the south: annual output per worker</i>
1913	9,185 (148)	.....	13,820 (223)
1914	9,054 (146)	181 (2.92)	21,590 (347)
1915	8,989 (145)	163 (2.63)	15,083 (243)
1916	7,451 (120)	143 (2.30)	12,543 (202)
1917	5,393 (87)	119 ¹⁰ (1.92)	10,605 (171)

The diminished production was due to the diminished efficiency of the workers; the employment of women and children was not the only cause of this inefficiency. The factories, working under pressure, were obliged to take on anyone willing to accept employment. Gradually their regular staff of qualified workmen, accustomed to factory discipline and skilled in their work, came to be replaced by a rabble, new to the work and taken on at haphazard. The decrease in productivity was even greater than it seems, if we consider that during the War the working day became longer, and overtime work was extensively resorted to. In the Moscow industrial region the number of working days was 267.8 in 1914, 271.3 in 1915, and 276.5 in 1916. The following table shows the number of days and hours worked per head:

	<i>Number of days per worker</i>		<i>Number of hours per worker</i>	
	<i>per half-year</i>	<i>per month</i>	<i>per half-year</i>	<i>per day</i>
1914 2nd half-year	126.6	21.1	1,143	9.01
1915 2nd half-year	128.3	21.4	1,167	9.09
1916 2nd half-year	134.4	22.4	1,250	9.30

The number of overtime hours for the second half-year per worker in 1914 was 19.41; in 1915 it was 19.32, and 21.82 in 1916.

Meanwhile factors were not lacking that might have been expected to have made work more productive. The prohibition of spirits caused a decrease in drunkenness, consequently, of days of non-attendance. The rise in wages for certain categories of labor would

¹⁰ From 1st January to 1st March 1917.

have also seemed an incentive to more productive work. But if ultimately in spite of these conditions production decreased, the fact emphasizes the presence of unfavorable conditions. Apart from the decrease in skilled labor, there were other causes operating powerfully in this direction. One of these was the difficulty of supplying food, which became especially great towards the end of the second year of the War; another was the wear of machinery, and lastly the political situation, which deprived the laboring classes of means of defending their interests.

As for the causes that should have had an influence in increasing production, their action was paralyzed by the adverse circumstances. But they had an important effect in raising the rate of wages. The shortage of adult male workers, which led to the decline of the efficiency of labor, produced on the other hand a deficiency in the supply of labor, and was the principal factor in raising the rate of wages.

Russian industry was always, even before the War, short of hands. The influx of laborers from the rural districts was slow, and did not correspond to the rapid development of industry. As has been shown in the preceding chapters, such industries as mining in the Donetz Basin, the petroleum industry in Baku, the iron industry in the Ural, were always hampered by a deficiency of workmen.

During the War, this deficiency, as we have seen, became acute, while the demand was constantly growing. In consequence of this, wages rose. The need for hands was so great, that the factories working for the front were ready to pay anything for labor. By 1915, the rate of wages had already risen considerably. The decrease of work in the industries unconnected with the War, and the high wages paid in the others, led to the transfer of workmen from the less favored to the more active industries. The high wages also attracted to these factories new classes of workers, such as domestic servants, caretakers, and clerks.

In spite of all this the supply of labor was not equal to the demand, and as the War dragged on, and the army grew, and with it the demands on industry, the price of labor rose also. In 1916, wages rose at an even greater rate than in 1915.

As is shown in Appendix XXV, the average rate of labor wages for all Russia and in all industries was in 1915 almost 50 per cent

higher than in 1913. In 1916, it rose to 133 per cent above the 1913 rate. But this rise in wages was distributed unequally. It was greater in those industries that were immediately occupied with army supplies (metal, machinery, chemical, and leather industries), and much less in those that supplied the civilian population (silk, stone, and other industries).

It must also be borne in mind that the growth in wages was also to a great extent affected by the general rise in prices, and by the decline of the buying capacity of the ruble. In consequence of this, the actual value of wages was much smaller than the face value. And what is more, though the rise in wages from 1913 to 1916 was common to all industries, the actual value of wages was higher only in certain industries, *i.e.*, in those working for the defense of the country (metal, machinery, chemical, leather). On the contrary in those industries that were essential to the civil population, such as the mining and textile industries (with the exception of the preparation of mixed fiber), the actual value of wages was below the level of 1913.

Besides this, the growth of wages was partly attributable to the increased length of the working day and to overtime work.

All these facts could not but render work less productive, and this became strikingly apparent by 1916.

7. State of the money market¹¹ and rise in prices.

One of the causes that helped to produce the disturbance and confusion in industry and trade which we have endeavored to describe, was the disorganization of the money market, that is to say, inflation and, as a consequence, a general rise in prices.

A few days after the outbreak of war (5th August 1914) the Government published a decree suspending the convertibility of paper money into gold. Beginning from the 27th July 1915 onwards, the Government issued a succession of decrees, in the years 1915 and 1916, extending the right of issue of paper money by the State Bank. Before the War the amount of paper currency had been fixed at 300 million rubles in excess of the value of the metallic reserve. This limit was ultimately raised to 6,200 million rubles.

¹¹ For details of the problem of currency see Professor Michael V. Bernatzky in *Russian Public Finance during the War* (Yale University Press, 1928), of this series of the *Economic and Social History of the World War*.

The abolition of the spirits monopoly; the sharp fall of the customs receipts in the second half of 1914 (brought about by the decrease in foreign trade); the decrease of receipts from railway traffic, due first to the absorption of the greater part of the railway service by the requirements of war, secondly to the occupation by the enemy of certain provinces, and thirdly to the general diminution in the circulation of goods,—all these causes combined to reduce the revenue of the State during the first year of the War. At the same time the mobilization and extensive war orders gave rise to a great increase of expenditure. The deficit in the budget grew continually, and forced the Government to defray the expense of the army by fresh issues of paper money.

On the suspension of the convertibility of paper money, gold gradually disappeared from circulation, and was replaced by paper money exclusively. The exclusive use of paper money inevitably affected the rate of exchange of the ruble, and consequently all prices. With the further issue of paper money, and with the diminution of commercial activity, and with the growing disorganization of transport, the effects of inflation became even more apparent. There was an increased demand for foreign goods required by Russian industry. The rate of the ruble on foreign markets steadily declined. On the home market the value of the ruble fell less rapidly; its great fall came later on, as is seen from the following table.

<i>Official quotation of the ruble in Stockholm</i> (Parity: 100 rubles=192 Kroner) <i>Percentage of exchange at par</i>		<i>Unofficial ratio of gold to paper ruble in Petrograd</i> (Gold rubles=100 paper rubles)
January 1915	88	90
July 1915	71	77
January 1916	56	76
July 1916	56	71
January 1917	52	62
April 1917	44	45
July 1917	37	33
October 1917	20	14

Down to May 1917 the rate of the ruble was higher at home than abroad, but after that date the conditions were reversed, and the fall of the ruble on the home market became greater than abroad.

Owing to the great fall in the value of the ruble abroad (it at-

tained nearly 56 per cent in 1916) the prices of all foreign goods rose in a greater proportion than the prices of those manufactured in Russia. This, even apart from technical and transport difficulties, made foreign goods so expensive, that their import came to be limited almost exclusively to such as were indispensable to the needs of national defense.

The importation of goods for the supply of the civil population suffered a great decrease. In the case of certain goods it was quite discontinued. Consumption in Russia, especially of manufactured articles, had always been to a large extent dependent on foreign imports. Now that these had almost ceased, goods of Russian manufacture acquired something like a monopoly. This again contributed to the rise of prices.

In general, the cost of living was influenced by the following causes:

(1) high prices of foreign goods, both articles of immediate consumption and raw materials used in production;

(2) rise of wages;

(3) increase of cost of production, due to the first two conditions;

(4) disorganization of the transport service, and consequently inadequate distribution of goods;

(5) excessive issue of paper money, concurrently with the increase of commercial activity.

The following index-numbers show the rise of prices relatively to the normal level of 1913-1914 (taken as 100).¹²

	<i>July 1915</i>	<i>December 1915</i>	<i>July 1916</i>
Wheat	113	161	182
Rye	189	176	183
Wheaten flour	121	154	164
Rye flour	144	183	199
Oats	193	225	251
Barley	109	142	154
Average rise for breadstuffs	137	174	189

¹² There were no statistics of prices in Russia. We are using the information collected by the Bureau of Economics of the Unions of Zemstvos and of Towns. See Appendix XX. For a detailed treatment of this subject see Professor Peter B. Struve, *Organization and Policy of Food Supply in Russia during the War*, of this series of the *Economic and Social History of the World War*.

	<i>July 1915</i>	<i>December 1915</i>	<i>July 1916</i>
Sugar	131	146	147
Meat	121	168	332
Butter	114	233	224
Salt	228	401	583
Hides	216	145	155
Wool	179	179	188
Flax	145	199	265
Calico	160	160	213
Kerosene	113	120	130
Naphtha (refuse)	136	145	120
Coal	144	137	148
Copper	170	180	219
Pig-iron	118	129	199
Average, exclusive of breadstuffs	159	180	225
Average for all products	146	178	214

As appears from these figures, the prices had risen most for goods that were in greatest demand for the army, and for those the production of which had decreased. Oats, meat, hides, wool, copper, pig-iron, flax, and salt show the highest prices. Wheat, sugar, kerosene show a smaller rise, either because the demand for the army of these products was small, or because the output had not undergone any serious decrease. In any case, the average of prices for the most important goods had by 1916 more than doubled.

8. *Loss of equilibrium in national economy.*

The state of industry and of the home market did not remain the same throughout the War. We are not referring merely to the changing conditions of industry and of the home market at the different periods, as discussed in the preceding chapters. If we review the state of industry during the whole course of the War (*i.e.*, to the middle of 1917) it is easy to show how its different branches were variously affected by different causes. This variety of causes produced varying conditions in the markets for the several goods, varying conditions in different regions, variations in the supply of necessities to the different branches of industry, and variation in the extent to which the demands of different groups of the population could be satisfied.

The essential reason for this variety of conditions in the different branches of industry was that the War had upset the equilibrium of national production. From the economic point of view, war means a sudden sharp rise in the demand for certain goods. This sudden rise of demand places the country's industry in an abnormal degree at the orders of the State: *i.e.*, at the service of the needs of war. At the same time as the demands of the State increase, there is a corresponding decrease in the demand of the civil population. Certainly it cannot be said that this decrease is uniformly distributed. It often happens that certain groups of the population do not show any decrease in their demand; sometimes there may even be an increase. For instance, during the first two years of the War, owing to the prohibition of spirits, the peasants had more spare money, and they purchased not only more foodstuffs, but also more manufactured goods of prime necessity. Yet the demands of war prove more insistent both from the point of view of the State and from that of industry. The consumption of a population, especially in a country such as Russia, is elastic, and can easily be compressed or expanded, whereas the demands of national defense are independent of the will of the State and of the extent of the supply market. The demands of war stand apart from the general economic life of a nation. They cannot be subjected to the natural laws that automatically regulate conditions of trade at a given moment. The supply of war material is therefore limited only by the productive capacity of a country. The higher its level, the greater the proportion of that productive capacity which can be used for the needs of war without detriment to the normal life of the population. But in countries where the level of productive forces is low, the excessive withdrawal of labor, raw material, machinery, means of transport, money, and financial resources for the needs of war will produce a restriction of the supply available to meet the needs of the nonbelligerent population and of the normal demands of the country. Under such conditions the general equilibrium is upset. It is true that this disturbance of equilibrium is produced, as a rule, by the usual economic laws—the transfer of capital and labor from one group of industries to others, under the influence of increased demand, laws that operate in the same manner in peace-time. But it is just because of the fact that the ordinary rules operate during war-time, that the abnormal demand in certain branches of industry, and the artificial obstacles to produc-

tion in others combine to upset the balance in the economic life of a country.

In the course of the World War of 1914-1918, which assumed such enormous dimensions, this disturbance of national economy occurred not only in those countries which were engaged in the War, but to a considerable extent even in the neutral countries. It was natural that this disproportion in the activity of the different industries, and the loss of relation between supply and demand, should affect in the highest degree a country so economically undeveloped as Russia.

The characteristic feature of Russian industry during the War, as of that of certain other countries, was a disproportion in the rate at which its different branches advanced. The industries that worked directly for defense, or were connected in any way with the needs of the army, grew to an abnormal extent, while the peace-time industries underwent a corresponding depression.

The metal industries, the chemical and leather industries enjoyed, during the whole course of the War, great prosperity. Much additional labor was attracted to them, and wages rose continuously. At the other pole were the industries producing, if not articles of luxury, at any rate goods that were not of prime necessity. These experienced a depression as great as was the boom in the "war industries." Between the two were the industries that served the ordinary needs of the population. Here, owing to the efforts exercised on their behalf, the depression was less acute, but nevertheless their activity to a certain degree was somewhat reduced.

We can form an idea of this process by studying the fluctuations in the distribution of labor in the several branches of industry, as shown in the following table.

DISTRIBUTION OF WORKERS IN THE DIFFERENT GROUPS OF INDUSTRY, 1913-1916

	1913		1916		Percentage of 1916 figures to 1913
	<i>Number of hands employed</i>	<i>Percentage</i>	<i>Number of hands employed</i>	<i>Percentage</i>	
(1) Textile	918,258	39.6	724,059	34.6	78
(2) Metal	385,621	16.7	546,117	26.1	141
(3) Extractive	37,759	1.6	41,327	1.9	109
(4) Chemical	90,463	3.9	92,679	4.4	102
(5) Foodstuffs	369,001	15.9	338,591	16.2	91
(6) Paper and printing	107,744	4.6	80,514	3.8	74
(7) Woodworking	132,120	5.7	87,780	4.2	66
(8) Animal prod- ucts	55,736	2.4	70,168	3.3	126
(9) Mineral	215,560	9.3	101,638	4.9	47
(10) Miscellaneous	7,605	0.3	10,989	0.6	143
Total	2,319,867	100.	2,093,862	100.	90.2

We see from these figures, that though in 1916 the total number of workers had diminished, and was only nine-tenths of the number in 1913, the number of hands employed in the metal, mining, and leather industries in 1916 was higher than in 1913, and that the proportion of workers employed in these industries to the total had greatly increased. On the other hand, the greatest decrease is to be observed in the manufactures of secondary importance, such as woodworking and the manufacture of glass. But the decrease had also extended to the textile, paper, and food industries.

These facts stand out still more clearly if we consider different regions of Russia. The average figures taken for all Russia disguise the acute shortage of labor that occurred in certain districts. In districts with a high development of manufacturing industry, this transfer of the center of gravity from one kind of industry to another was felt more keenly.

Thus the number of factories and the number of workers in each in the Moscow industrial district are shown in the following table.

VARIATIONS IN THE NUMBER OF WORKERS IN DIFFERENT INDUSTRIES IN THE MOSCOW DISTRICT

	<i>1st January 1914</i>		<i>1st January 1917</i>		<i>Percentage in 1917 relative to 1914</i>	
	<i>Number of factories</i>	<i>Number of workers</i>	<i>Number of factories</i>	<i>Number of workers</i>	<i>factories</i>	<i>workers</i>
(1) Textile	998	567,368	1,022	546,671	102	96
(2) Paper and print- ing	247	20,204	261	19,563	105	96
(3) Woodworking	336	17,823	303	15,270	90	85
(4) Metal	372	65,216	464	110,031	124	168
(5) Mineral	257	43,477	195	26,268	75	60
(6) Animal products	126	10,883	170	21,814	134	200
(7) Foodstuffs	333	30,659	267	28,816	80	93
(8) Chemical	106	15,107	138	28,102	130	186
(9) Miscellaneous	7	8,785	16	2,097	228	23
Total	2,782	779,522	2,836	798,631	101.9	102.4

In the Moscow region, as in the whole of Russia, the textile industry, woodworking, glass and china industries, and also the preparation of foodstuffs, lost a considerable number of workers. And a characteristic feature must be noted, *i.e.*, that in the textile industry, though the number of hands employed diminished, the number of factories increased. The great demand for textiles and the high prices attracted capital and enterprise to this industry. The number of mills was therefore on the increase. But there was not a corresponding influx of labor. This was absorbed by the metal, chemical, and leather industries. In these industries the number of hands employed was nearly doubled. Before the War it amounted to 11 per cent of the total of hands employed in the Moscow manufacturing district. By 1st January 1917 it had risen to 18 per cent.

The increase in the number of workers in these industries was still more marked in Petrograd.

DISTRIBUTION OF WORKERS IN VARIOUS INDUSTRIES IN
PETROGRAD

	<i>1st January 1914</i>		<i>1st January 1917</i>		<i>Percentage in 1917 rela- tive to 1914</i>
	<i>Number of hands employed</i>	<i>Percentage of total</i>	<i>Number of hands employed</i>	<i>Percentage of total</i>	
(1) Textile	46,968	24.3	42,985	10.7	95
(2) Paper and printing	15,865	8.3	21,416	5.4	135
(3) Woodworking	5,025	2.5	4,715	1.2	93
(4) Metal	61,663	31.7	248,423	61.5	402
(5) Mineral	20,098	10.4	10,237	2.5	50
(6) Animal prod- ucts	9,069	4.7	11,126	2.8	122
(7) Foodstuffs	17,979	9.1	14,030	3.4	78
(8) Chemical	16,698	8.6	44,525	11.1	266
(9) Miscellaneous	847	0.4	5,919	1.4	698
Total	194,212	100	403,376	100	207

The changes introduced by the War in the distribution of labor between the several industries were more considerable in the Petrograd than in the Moscow district. This is due to the fact that the factories working immediately for the army were much more numerous in Petrograd than in Moscow. In Petrograd these factories employed 45 per cent of the total number of hands, while in the Moscow district it was the textile industry that predominated, and the three industries working exclusively for the army employed only 11 per cent of the labor force. It is therefore natural that the increase in the employment of labor in these industries was greater in Petrograd than in Moscow. In Petrograd towards the end of the War, three-quarters of all the labor employed was engaged in these industries, and only a quarter in the industries partially supplying the ordinary demands of the population.

The industrial conditions that prevailed in Petrograd after two years of war reflect in the clearest way the disturbance that occurred in the balance of the national economy. Evidence of this upheaval may be seen in the following tables taken from the returns issued by the present Director of the Statistical Bureau in Russia. All industry is here divided into three groups:

(I) industries working immediately and exclusively for the War;

(II) industries sometimes executing orders for the Army Supply Department, but as a rule working for the ordinary market;

(III) industries taking no part in war work.¹³

The totals of production and the number of hands employed are given for each group as a whole.

AVERAGE OF WORKERS PER DAY

	<i>Group I</i>		<i>Group II</i>		<i>Group III</i>	
	<i>Absolute number</i>	<i>Percentage</i>	<i>Absolute number</i>	<i>Percentage</i>	<i>Absolute number</i>	<i>Percentage</i>
1913	180,589	100	408,983	100	143,347	100
1914	204,066	113	407,743	99.7	143,715	100.2
1915	247,445	137	398,154	97.3	137,189	95.7
1916	300,464	166	391,199	95.3	138,348	96.5
1917	327,967	182	397,794	97.2	147,366	102.8

¹³ Only for 1,597 enterprises, including for Group I, 595; Group II, 384; Group III, 618.

VALUE OF ANNUAL PRODUCTION¹⁴

(In thousands of rubles and of pounds sterling)

	Group I	Percentage	Group II	Percentage	Group III	Percentage
1913	537,308 (56,797)	100	877,971 (92,808)	100	217,195 (22,958)	100
1914	616,172 (65,134)	114.6	833,668 (88,125)	94.6	223,117 (23,585)	102.7
1915	1,154,232 (122,011)	214.8	824,747 (87,182)	93.9	209,488 (22,143)	96.5
1916	1,513,046 (159,941)	281.5	735,901 (77,791)	83.8	183,169 (19,362)	84.3
1917	1,544,196 (163,234)	287.2	490,716 (51,872)	55.8	138,314 (14,621)	63.3

VALUE OF ANNUAL PRODUCTION PER WORKER

(In rubles and pounds sterling)

	Group I	Percentage	Group II	Percentage	Group III	Percentage
1913	2,975 (314)	100	2,147 (229)	100	1,515 (160)	100
1914	3,019 (319)	101.4	2,044 (216)	95.2	1,552 (164)	102.4
1915	4,664 (493)	160.1	2,070 (218)	96.4	1,527 (161)	100.7
1916	5,135 (542)	179.3	1,881 (198)	87.6	1,324 (139)	87.4
1917	4,709 (497)	158.2	1,234 (130)	57.4	939 (99)	61.9

¹⁴ Prices of 1913. Rubles are here converted into pounds sterling at par.

These figures show that both the number of workers and the productivity of labor had increased in the industries manufacturing arms and munitions. It is also to be noticed that though the number of hands had not quite doubled, the production was nearly tripled. The production per head of workers had increased by 50 per cent. Labor had evidently become more intense. In the other two groups, though the number of hands had not greatly decreased, the productivity of labor had diminished by one-third.

The needs of the general consumer were satisfied to a much smaller extent than before the War. In some branches of industry production was either quite given up or greatly restricted. For instance, building in 1915, according to the official information, had greatly diminished, owing to the scarcity of workers and to the high cost of materials and difficulty of transport; and also owing to the limitation of credit. A certain amount of building was carried on for military purposes, and for the reception of factory plants removed from the front zone to the interior. A memorandum of the Ministry of Finance says: "The building season of 1916 showed slight activity, the private demand for building materials was extremely restricted. The number of permits for building applied for was insignificant. The only place where there was a certain demand for building materials was the region reoccupied by our troops. For this reason the production in the brick-making, cement, and glass industries has greatly decreased."

In another branch of industry, metal-working, government orders had completely ousted all private business. The output of arms and munitions, which in 1913 was 2,690,000 puds (43,000 tons) or 1.35 per cent of the total production of the iron industry, rose in 1916 to 24,580,000 puds (397,000 tons) and 13.33 per cent of the whole output. In pre-war times, private orders constituted 79 per cent of all the production. In 1915, the ironworks refused all private orders and could with difficulty execute those of the Government. The production for the ordinary market decreased in the following proportion. The output of steel and iron declined from 86 million puds (1,380,000 tons) in 1913 to 64 million puds (1,030,000 tons) in 1916. The output of sheet-iron (for roofing) fell from 25.3 million puds (408,000 tons) to 18.2 million puds (295,000 tons).

The deficiency of metal, together with the great consumption of it by the munition factories, also severely affected the manufacture of

agricultural machinery and tools. These formed, in 1914, 90 per cent of the normal pre-war production. In 1915 the proportion was only 50 per cent; it fell still further to 20 per cent in 1916; and to 15 in 1917. At the same time the value of the output of arms went up from 46 million rubles to 490 millions in 1917, while that of agricultural machinery went down from 6.5 million rubles to 1.9 millions in 1917. The number of hands employed on munitions rose from 22,426 to 86,615, and the number employed on agricultural machinery fell from 3,383 to 2,965.

A similar perturbation was experienced in foreign trade, in respect of imports. We have already referred to the great decrease in the imports of the principal commodities, not only for the army, but also for ordinary consumption and for industrial purposes. On the other hand, attention must be drawn to the increase in the imports of materials required for national defense.

IMPORTS

(In thousands of puds and tons)

	1913	1914	1915	1916	1917
Copper	379 (6.1)	790 (12.7)	2,529 (40.8)	1,463 (23.2)	1,424 (22.9)
Steel	1,280 (20.6)	2,927 (47.2)	4,443 (71.6)	3,441 (55.5)	2,474 (39.8)
Nickel	93 (1.5)	264 (4.2)	206 (3.3)	344 (5.5)	67 (1.1)
Tin	310 (5.0)	349 (5.6)	495 (7.9)	242 (3.8)	154 (2.5)
Lead	2,893 (46.6)	3,618 (58.3)	4,182 (67.4)	2,886 (46.5)	1,008 (16.2)
Zinc	1,103 (17.7)	1,271 (20.5)	1,523 (24.5)	1,162 (18.7)	955 (15.4)
Iron and steel					
goods	1,877 (30.2)	2,020 (32.5)	4,272 (68.9)	3,628 (58.5)	2,888 (46.6)
Wire	717 (11.5)	952 (15.3)	6,103 (98.4)	3,732 (60.2)	1,600 (25.8)

These figures show that (while the total imports fell in 1916 to 61 per cent of what they had been in 1913, and the imports of coal and machinery decreased—the first to one-seventh and the second to one-half) the imports of metals and other goods necessary for the defense increased. Thus in foreign trade also the center of gravity was shifted to meet the needs of war.

So it was with the railways. Even if the condition of the railways had been all that could be desired, the necessity of putting the greater part of their effective capacity at the service of the army would have made it impossible for them to meet the requirements of

the interior market. From the moment the mobilization was declared, all the railways of the western region (the front) covering about 14,900 miles (nearly a third of the whole railway system) were given over to the army authorities, to be used exclusively for military purposes. As the rolling-stock of these lines was inadequate, part of the rolling-stock of the eastern lines was transferred to them. By the middle of 1915 the number of carriages and trucks taken from the eastern railways was 35,000.

The distribution of rolling-stock between the western and eastern lines was as follows: before the War the western lines had 119,000 carriages and trucks, or 24 per cent of the total number in Russia, and 5,700 engines, or 29 per cent of the total. By June of 1915 the number of carriages and trucks on the western lines had risen to 166,000 (33 per cent of the total) and of engines to 7,000 (35 per cent of the total). On the other hand, on the eastern lines the number of carriages and trucks had decreased from 366,000 to 344,000, and the engines from 14,100 to 3,000.

It was natural that the center of gravity, in transport as in industry, should be transferred to the service of the army, and that the service of the population should suffer.

Summing up the facts described in the preceding pages, we may form an idea of the causes of the adverse conditions with which Russian industry was confronted during the War.

1. The great decrease in imports diminished the reserve of the raw materials required by industry, and there was consequently a diminution in the quantity of manufactured goods supplied to the population.

2. The demand for fuel and raw materials exceeded the supply to such an extent that neither the resources of the country nor the increases, in some cases, in imports, were sufficient to enable industry to cope with the needs of defense.

3. The greater part of the railway traffic was put at the service of the army; and this disorganized the interior market, by keeping back the supplies required for industry and consumption.

4. The decrease in the supply of labor and the deterioration of its quality diminished productivity, and in many cases caused a decline in the real value of wages.

5. The confusion in the money market and the rise of prices, due

to causes already stated, rendered conditions unfavorable for all industries in which fuel and raw materials form a great part of the cost of production.

The high prices of all goods diminished the purchasing power of the population and consequently increased the difficulty of supplying the urban population with food, and industry with raw materials produced by agriculture.

6. Lastly a general disturbance of economic equilibrium, brought about by the concentration of industrial activity on the needs of war, while the industries working for the ordinary market were forced into the background.

Each of these hostile conditions which attended industry as a whole was a separate problem to be solved by the economic policy of the State. Their combined effects became particularly acute towards the beginning of 1915. They made it clear that what had been considered the normal and immutable economic policy must be completely changed.

PART II

ORGANIZATION OF NATIONAL RESOURCES

CHAPTER I

FIRST STEPS TOWARDS AN ECONOMIC WAR POLICY

THE fluctuations and changes of the Government's economic war policy corresponded to the fluctuations and changes of industrial conditions during the War.

In Russia, as in other countries engaged in the War, the first short period of perplexity and confusion lasted about two months. It was followed by a time during which the watchword "Business as usual" became popular. When the first confusion subsided the market appeared to be under the influence of a wave of prosperity: the mills and factories were glutted with orders, the industrial crisis was over. "Business as usual" expressed the general attitude and reflected the widespread opinion of the most various groups. Towards the end of 1914 the public became convinced that discipline, staying power, and steadiness were indispensable for victory, and that the best way to maintain these attributes was for the country to continue its normal pre-war life.

Business men believed that they must attend to their affairs just as they did before the War. Trade and industry were to operate in their normal manner; the transport service and the working classes were to go on with their work. The civil population was not to concern itself with the War,—this was the real meaning of "business as usual."

The Imperial Free Economic Society (*Imperatorskoe Volno-Ekonomicheskoe Obshchestvo*), one of the most influential scientific and social organizations in Russia, in an appeal to the country, wrote: "The country must produce all it can by intensive work. The population must show initiative. The Zemstvos and Municipalities must unite their efforts with all the unofficial bodies in the endeavor to counteract the disorganizing effects of war and to maintain the normal life of the country."

The task of the population and the Government was defined as follows: to help to support the country's industrial life at its normal level. The idea prevailed that if at the rear things went on as usual,

this would best assist the military operations. This idea was firmly implanted in people's minds. The increased activity which replaced the first impression of panic was instrumental in favoring the false conception that the ruinous effects of the War would be limited to the front area. Even eminent Russian economists countenanced the theory that national economy in Russia would feel the shocks of war in a lesser degree than any of the other belligerents. They thought that Russia's natural wealth, especially the abundance of food that would remain unexported, the decrease in consumption, the small extent of capitalistic development, would carry Russia through the War with less disastrous effects than other countries. The only thing to be done was to keep up the activity of national industry, so that the economic forces of Russia might pass successfully through the ordeal. The aim of an economic policy was to leave everything unchanged, as it was before the War.

It was doubtless necessary to resist the blows that the War inflicted on industry, but it was a fundamental error to suppose that it was possible to maintain the normal pre-war industrial life under the existing circumstances, when the productive forces of the country were strained to the utmost, and when industry and transport were confronted by such tremendous demands as the War occasioned. Neither the Government nor the public understood at first that the effects of the War would not be limited to the neighborhood of the front, that there was a close connection between the successful results of military operations and the conditions in which industry could work efficiently, and lastly that no efforts could maintain the "normal" working of the economic machine under the abnormal conditions of war.

During the first period of the War, from August 1914 to the spring of 1915, public attention was attracted to the rear rather than to the front. It is true that all the public forces were intent on helping the army, but this help manifested itself mostly in care for the sick and wounded, and in supplying the soldiers with comforts. Much active help was given to the Government in widely different spheres connected with the War, but not in the sphere of economics or industry.

Industry received orders from the Government for the supply of the army, but it acted in respect of these orders as it had done before the War. It carried out the Government's orders, taking care at the

same time to be well paid for them, and to obtain raw materials, fuel, and labor on the most favorable terms. It delivered the goods to the Government, and at the same time tried to secure private orders. Industry viewed the Government, as it had before the War, only as a customer. It considered itself merely one of the contracting parties, and its activity as its own private business, in which, as usual, it was governed only by consideration of its own private profit, of free competition, and the laws of supply and demand. The State was a consumer, industry was a producer. If it was impossible to satisfy the demands of the Government, or if a certain factory was not among the favored few that got huge orders from the State, the fact was of no great importance: private orders were just as numerous and no less profitable. This attitude was intensified by the prevailing opinion that it was quite as important to serve the civil population as to serve the army, even from the point of view of the welfare of the nation.

Such was the state of mind of the business community, and of public opinion in general, at this period. The position of the Government was different, though its ideas as to the economic policy demanded by the War were even more antiquated than those of the public.

Owing to the existing laws, the War imposed on the Government certain functions that were unusual in peace-time. As soon as war was declared the Government, on 3rd August 1914, published new regulations with regard to its right of requisition during the mobilization and War. These regulations, which were merely an amendment of the old law of 1869, introduced a new system of requisition and gave more power to the authorities. The new enactment defined requisition as the compulsory acquisition from the population of all kinds of resources, and also of compulsory work in cases of military necessity. The requisitions were to be paid for, and the right of requisition was given to all commanding officers.

Besides this the Government published on 4th September a ukase obliging factories to give priority to military or naval orders, and in the event of the proprietor of a factory refusing to accept a government order, making his factory liable, by a decision of the cabinet, to be sequestered by the State. The same course might be taken as regards raw materials, and other supplies.

The more important dispositions of the Government in the sphere

of war-time economic policy at this period were limited to these enactments. In the first quarter of 1915 its policy found a more active expression, but the principles on which it was based remained the same.

The measures taken were chiefly concerned with the victualing problem, which does not fall within the scope of the present work. The victualing policy was significant as a demonstration of the close connection that existed between the supply of the civil population and the supply of the army. But there were also other measures.

By a ukase promulgated on 4th March 1915, the Minister of Transport was charged with the duty of harmonizing the activity of the military and civil authorities in the matter of supplying fuel to the army, navy, and to all private factories, especially those working for national defense, and the general mass of the population. The Regulations of 31st March 1915 issued in virtue of this ukase conferred upon the Minister of Transport the following wide powers:

(1) In the districts under martial law, or under other forms of exceptional law, all private persons or companies engaged in the extraction or production of fuel were put under the obligation of accepting and carrying out orders made by the Minister of Transport, in preference to any other order, even of earlier date, and to communicate to the said Minister all the information required concerning persons or companies engaged in the production or preparation of fuel.

(2) In the event of refusal to execute an order of the Minister, the latter had the right to sequester the business.

(3) In the above-mentioned localities, with a view to guaranteeing the necessary supply of fuel for the army and navy, and also for the factories working for the defense of the country, the Minister had the right of partial or general requisition.

(4) If, after the requirements of national defense had been satisfied, there remained in the hands of the State a free surplus of fuel, the Minister was authorized to dispose of it to private persons.

A special committee was formed in the Ministry of Transport to deal with the work of supplying fuel. Local committees were also organized, whose chief task was to fix the prices of fuel and to make inquiries in cases of sequestration of business or of requisitions of fuel.

The Government's policy with regard to fuel was the same, and

its aims as limited, as in respect of the problem of victualing. During the first period of the War the authorities did not direct their attention to the problem of augmenting the reserves of fuel by developing its production and attempting to distribute it rationally, but only to the task of supplying the factories situated near the front.

A little later, on the 2nd May, the powers above described were extended from localities placed under martial law to the whole country. But the purpose pursued was the same. They were merely the administrative measures indispensable to the work of the Army Supply Department. There was no trace in the measures taken of a wide, systematic policy of economy, directed towards the employment of the limited resources of the country to the best advantage or to their development.

Meanwhile, towards the end of the first year of the War, it became evident that the reserves of fuel in the country were insufficient, and that the output, for instance, of the Donetz Basin, not only could not be increased in the ratio of the growing demand, but even showed symptoms of falling off.

The output of coal during the first three months of 1915 was only 386 million puds (6.2 million tons), as compared with 502 million (8.1 million tons) during the same period of 1914, and 400 million puds (6.4 million tons) of 1913. During the first quarter of 1915 only 432 million puds (6.9 million tons) were conveyed from the Donetz Basin as compared with 457 million puds (7.4 million tons) in 1914. As the whole administration of the fuel supply was in the hands of the Minister of Transport, the transport service naturally received the greater part of this coal, considerably more than usual, —amounting (for railways and shipping) to 203 million puds (3.2 million tons) as against 145 million (2.3 million tons) in 1914.

At the same time, the iron works, sugar factories, and other industries were a hundred million puds short of their due, receiving 197 million puds (3.2 million tons) during the first four months of 1915 instead of 299 million puds (4.8 million tons) for the same period in 1914.

The railways were unable to cope with the increased transport of fuel necessitated by the cessation of the import of sea-borne coal in the north, particularly in the Petrograd region. On a rough calculation, from 85,000 to 100,000 trucks were required for the transpor-

tation of all the coal needed for the Petrograd region; whereas the number of trucks at the disposal of the Ekaterininsky line (the trunk line of the Donetz Basin) was about 21,000, and sometimes not more than 16,000, instead of the 32,000 normally available. The output of coal was insufficient, its transport difficult, its regular distribution disorganized. And yet the distribution remained uncontrolled, and as in normal times it was left to itself, to the usual influences of the market. But the market was now affected by new factors, which completely upset the usual balance of supply and demand.

These new conditions forced the Government to extend the scope of its intervention in the business life of the country. By a decree of the 29th May new rules were introduced for the distribution of coal among consumers. This distribution was now to be effected by three separate organizations:

- (1) the Minister of Transport with the help of the above-mentioned committee;
- (2) the local committees;
- (3) a committee in Kharkov, already existing, which regulated transport of coal and salt from the Donetz Basin.

The Minister gave directions as to the quantity of coal to be delivered to the different consumers, or groups of consumers. The local committees decided on the monthly quantity to be delivered to each consumer or groups of consumers in their localities, and informed the central committee of the manner of distribution. The local committees were authorized to transfer consignments of fuel from the consignee to others in case of necessity, and if the consignee refused to surrender his rights, the committee had the right of requisitioning the amount required.

All these were steps in the right direction. But State intervention still continued to have for its only object the distribution of the amount available. Measures undertaken for the more regular distribution of fuel could not by themselves be fully satisfactory unless the Government showed greater activity in fixing prices and regulating output. Besides, the principal reason for the small success of this intervention was that the leading part was entrusted to a group of officials, who had a very limited knowledge of business or of the conditions of the market.

In fact, down to June 1915 the Government did not undertake any serious measures of economic policy. And as the reader can see,

all the steps taken amounted to no more than an extension of the right of requisition for military purposes. And this right of requisition, adapted to novel circumstances, was in reality only an extension of administrative authority. To this was confined from September 1914 to June 1915 the economic war policy of the State.

CHAPTER II

MOBILIZATION OF INDUSTRY AND PUBLIC FORCES

1. *Unofficial movement.*

APRIL 1915 brought new and very distressing developments, which, for all the distrust of the Imperial Government entertained by the public, were nevertheless unexpected and proved a great shock to public opinion. In the middle of April began the disastrous retreat of the Russian army on the Galician front, and the rapid advance of the enemy on Russian territory.

It became evident that the success of the enemy forces was due not only to the better organization of the country in their rear, but even in a greater measure to the superiority of organization and the technical preëminence of their industry. Industrial output in Germany had attained an extraordinarily high development, and was further assisted by an equally efficient organization of distribution and transport.

It suddenly became clear to the Russian public that military success, besides requiring other conditions, depended greatly on the proper direction of industry to the production of all the necessary materials of war. But industry had already been employed chiefly on the production of munitions and military supplies. The exceptionally favorable conditions enjoyed by the industries engaged on work for the army had caused a great boom in the manufacture of munitions and military supplies. It was obvious that what was now needed was the organization of all the forces of the nation with a view to attaining a new and extraordinary standard of production. The idea found its expression in the watchword "Mobilization of industry," which was adopted in May 1915 by the most diverse groups of the population, including all the industrial world. The Government was soon forced to submit to it. It should, however, be remembered that this widespread movement differed from the analogous movement that had manifested itself from the very first in western Europe, in that it was primarily a political movement confined to unofficial circles.

April 1915 was spent in various congresses and conferences on

the subject of the economic policy to be followed. The problem of prices, which was becoming acute, was the subject of discussion at the economic conference of the Union of Towns opened on 5th April. Simultaneously, at a congress held by the representatives of commerce and agriculture, the unanimous opinion was expressed that the State could deal successfully with the problems of the War only if it worked in close harmony with the unofficial organizations. On the 27th April the representatives of the northern towns, belonging to the All-Russian Union of Towns, also met in conference. This conference adopted a similar resolution.

At about the same time the President of the Duma returned from his tour on the Galician front. At a private meeting of the members of the Duma he made a report on the state of things at the front. The report confirmed the doubts entertained by public opinion as to the efficiency of the government authorities, and the possibility of their dealing successfully with the problems of the War. The great deficiency in munition, arms, etc., was an unquestionable fact. The supplies were not only far less abundant than those of the enemy, but even below the standard that could be furnished by home production. It was evident that orders for the army were distributed and carried out with great negligence and without method, and moreover that the process was wholly controlled by the slow and heavy mechanism of officialdom. The bureaucratic offices, especially the Ministry of War, and the Central Artillery Department, and the persons in charge of them, showed extraordinary laxity, which gave rise to many criminal practices: bribery and favoritism were of common occurrence, and obviously worthless materials were frequently accepted. A total lack of efficiency and many cases of criminal negligence on the part of the government officials were brought to light, and absorbed the attention of public opinion.

The problems which confronted the unofficial circles were regarded by them primarily from a political point of view. The aim of the movement was, first, to replace the inefficient officials of the Imperial Government by more experienced public men, and, secondly, to bring all official activity under the control of public opinion, as embodied in the Duma.

Under the impression of the defeat of the Russian armies, the Government hastily made a concession: by a ukase of the 19th May a committee was formed, under the presidency of the Minister of

War, to supervise and distribute orders for the supply of the army. Several representatives of the Duma were made members of it. But from the first this measure was considered too modest, in the light of the radical changes demanded by public opinion.

In the summer of 1915, many conferences of the mayors of cities and delegates of the provincial zemstvos took place; also conferences of political parties, particularly of the Octobrists¹ and the Constitutional-Democratic Party. All these conferences were unanimous in pointing out that the War could not be brought to a successful issue without the immediate help of all the public forces of the country.

"The duty of supplying the army with munitions, the organization of its transport, and the problem of supplying food in the interior are tasks in which the unofficial forces are not allowed to have any part. They have proved to be beyond the unaided strength of the government officials," said the President of the Union of Zemstvos, Prince Lvov, in his statement at the conference of their Union. "We must mobilize our forces," the statement continued, "all Russia must be welded into one military organization." The conference of the Constitutional-Democratic Party adopted a resolution that "it had become evident, after ten months of war, that the Government, as now composed, had proved unequal to the task of organizing the rear."

Public opinion, and particularly the Constitutional-Democratic Party, considered it necessary that three new ministries should be formed: a Ministry of Munitions, on the lines of those in western Europe, at the head of which should be placed a public man who had the confidence of the nation; a Ministry of Labor; and a Ministry of Food Supplies. Under the constraining force of the general sentiment, the Government was obliged to adopt the following measures.

On the 7th June, in the place of the committee that had just been formed for the control of war orders, a new board was constituted under the presidency of the Minister of War—*The Special Council for the coördination of measures directed to the regular supply to the army of munitions and other material during the present War*. The Special Council received extraordinary powers. Its functions were defined as follows: The Special Council is answerable to the Sovereign alone; it receives orders from no official body, nor does it

¹ Moderate Liberal party named from the manifesto of 17th October 1905.

present reports to any; it can be impeached only by order of the Sovereign; it is composed, besides the representatives of the government departments, of the President of the Duma, of four members of the Duma chosen by the Emperor, and of four delegates from commerce and industry. The President of the Council has the right to require private persons or companies to accept and execute any order as soon as received, and before any other; and in the event of refusal is authorized to sequester the business. Moreover, the President of the Council is empowered to make partial or general requisitions of the plants and materials of factories, and to require private enterprises, engaged in transporting goods by road or water, to receive and transport goods according to his directions, in preference to any other goods.

The only novelty involved in the formation of this Council was that instead of being an exclusively bureaucratic board, it included members of the Legislature and delegates of the commercial and industrial classes. But its aims and functions, its constitution, and its proposed sphere of activity, were in no way different from the powers that had been given to the Minister of War in September 1914. The economic policy of the State remained the same. The control that was now instituted over war industry was merely of an administrative, not an economic, nature. As before, the conditions of the market remained outside the scope of its control, as did the conditions of supply, the internal arrangements of industry, and its organization.

Another and more important measure, this time purely political, adopted by the Government under the pressure of public opinion, was the convocation of the legislative bodies.

The Duma, as soon as it met, concentrated on the problem of improving the conditions behind the lines, and of developing the output of the industries engaged in supplying the army. It rejected a bill proposed by the Constitutional-Democratic Party for the formation of a Ministry of Munitions. But the Council instituted on 7th June also failed to secure the sympathies even of the more moderate parties.

Instead, the Duma passed a bill for the formation of four Special Councils:

(1) the Special Council attached to the Ministry of War, the so-called Special Council for Defense;

(2) the Special Council attached to the Ministry of Commerce and Industry to regulate the problem of output and the distribution of fuel to the railways, the army, the navy, the factories, and the more important public works;

(3) the Special Council attached to the Ministry of Agriculture to deal with the victualing of the army and the population;

(4) the Special Council attached to the Ministry of Transport to regulate the transport of war material, food supplies, and private goods.^{1a}

The functions of these new councils were to be much wider than had previously been customary. The characteristic feature of all of them was the concentration in the hands of one authority of the problems connected with the organization at the rear, and the supply of the front. Their close interdependence had become evident. The hard lessons of the preceding period of the War had proved that economic policy during war cannot be limited to the problems of the front, but that a single line of conduct must be adopted for the whole country, by which all the forces of the nation may be organized for war. This new conception of the method of dealing with the economic problems of the War had been rendered possible, independently of public opinion, by the fact that a parallel movement had arisen among the business classes, who now realized the necessity of bringing industry and commerce into conformity with war-time conditions. This conception found expression in the watchword, "Mobilization of industry."

2. *The self-mobilization of industry.*

As soon as the public became aware of the deplorable conditions at the front and of the insufficiency of output to meet the requirements of the army, the leaders of industry took up the question of its mobilization. "Without losing a moment," wrote the *Utro Rossii*, the paper of the Moscow industrialists, "we must set to work and mobilize all industry, and adapt all mills and factories to the requirements of war. The demands of the market and the needs of private life must be sacrificed. Every factory that is wanted for the War must be enlarged and thoroughly equipped with machinery and

^{1a} See Professor Paul P. Gronsky, in the volume *The War and the Russian Government* in this series of the *Economic and Social History of the World War*.

appliances. All the workmen must be mobilized, placed on a military footing, and assigned to the factories where they are needed; for at a time like the present, work in a factory is just as responsible and as necessary for victory as sentry duty on an outpost." At a conference of the representatives of commerce and industry, which took place in Petrograd at the end (26th-29th) of May, a resolution was carried in favor of "the unification, according to the example of our Allies, of all the industrial and commercial forces of the country so as to assure the timely supply of the army with all necessities."

At first the question was much debated whether the mobilization should be voluntary, and derive from the initiative of the industrial circles themselves, or compulsory, by order of the State authority. The zemstvo leaders were for compulsory mobilization. The zemstvo of the province of Moscow at its meeting of 2nd June passed a resolution in favor of the enactment of a law giving the State a wide power of intervention in the adaptation of industry to the needs of national defense, as regards both technical and economic organization of production, and the regulation of conditions of labor. For this purpose they proposed that local committees should be formed, provided with the necessary authority, and consisting of government officials, of delegates of such public organizations as were engaged in supplying the army, and of representatives of industry. These committees were to enforce government measures, and to be the connecting link between the central authority and the unofficial organizations.

Many of the zemstvos of other districts held similar opinions, and the Kharkov zemstvo sent a telegram to the Emperor to the following effect: "In view of the importance to the State of the mobilization of industry, and of the fact that this would contribute greatly to bring the War to a victorious end, it would be advisable to declare the compulsory mobilization of all industries for the purpose of supplying the army."

As a practical policy for dealing with the economic problems of the War, the proposed compulsory mobilization was unquestionably the most rational and consistent measure possible. But in Russia the execution of such a plan met with difficulties of a political nature. No confidence was felt in the Government. The government departments and officials had just shown their total incompetence in presence of the ordeal of war. The part taken by the Government, and

the control it exercised over the supply of the army was one of the causes of the reverses at the front and of the confusion in the interior. In these circumstances the idea of a compulsory mobilization, handing over the chief direction of industrial affairs to the Government, did not meet with the approval of public opinion.

The *Utro Rossii*, the paper of the industrial circles, expressed this opinion clearly when it wrote: "The zemstvos have attempted to deliver public initiative into the hands of those very elements whose inability to deal with the great problem of national defense has been proved. It is this incompetence that has caused the present unanimous desire of all the productive forces of Russia to come to the aid of our heroic armies."

Political groups also began to express their disapproval of compulsory mobilization. It was pointed out that "we must take into consideration actual conditions, the habits of the people, the existing system of government, and administrative methods. The clear-cut and categorical injunctions of a compulsory law might be insufficient to break the resistance of the business community, or (what would be still worse) it might degenerate into arbitrary abuse and irreparable confusion."

The idea of voluntary mobilization of industry at last prevailed. Thus the problem of a war-time economic policy was solved from the very outset by a false method, though the distrust of the Government under the conditions of the old régime was perfectly comprehensible. Nevertheless the mobilization of industry, even in this mistaken manner, played a useful part, and the executive bodies it called into being had a great influence in widening the scope of State intervention in the regulation of industrial activity. By degrees the march of events forced government intervention into new spheres of action, and resulted in the State regulating not only all the industrial, but all the economic life of the country.

The Congress of the Representatives of Industry and Commerce (May 1915) proposed that all trade organizations should form district committees, which were to endeavor to adapt the existing factories to the manufacture of everything necessary for the army and navy, and to coördinate the activities of all commerce and industry to this end. As a means of bringing the work of the different districts into harmony with the dispositions of the military authori-

ties, the conference decided to form a *Central War Industries Committee* in Petrograd. This Committee consisted of nineteen departments:

- | | |
|-----------------------|------------------------------|
| 1. Machinery | 11. Labor |
| 2. Metal works | 12. Storage |
| 3. Military equipment | 13. Fuel supply |
| 4. Chemical | 14. Financial |
| 5. Linen | 15. Automobiles and aviation |
| 6. Cotton | 16. Medical and sanitary |
| 7. Wool | 17. Inventions |
| 8. Leather and boots | 18. Legal |
| 9. Transport | 19. Audit |
| 10. Food supply | |

Each of the departments consisted of several sections and committees. For example, the 12th department (storage) consisted of the following sections:

- | | |
|-------------------------|------------------------|
| 1. Cotton fabrics | 5. Silk |
| 2. Linen fabrics | 6. Clothing |
| 3. Jute fabrics | 7. Vehicular transport |
| 4. Leather and saddlery | |

The department of fuel supply (the 13th) included four sections:

- | | |
|--------------|-------------|
| 1. Petroleum | 3. Peat |
| 2. Coal | 4. Firewood |

The medical and sanitary department (the 16th) consisted of five sections:

- | | |
|---------------------------------|--------------|
| 1. Consultation and information | 3. Technical |
| 2. Medical appliances | 4. Chemical |
| | 5. Stores |

Towards the end of 1915 twenty-eight provincial war industries committees were formed in different districts of Russia (Archangel, Astrakhan, Baku, Warsaw, Vladivostok, Helsingfors, Grozny, Irkutsk, Ekaterinburg, Kazan, Kiev, Moscow, Nizhni-Novgorod, Omsk, Odessa, Petrograd, Riga, Rostov-on-Don, Samara, Saratov, Tashkent, Tiflis, Tomsk, Kharkov, Kharbin, Chelyabinsk). Moreover, in the course of the first two months, local committees were formed in 74 towns of the Empire.

On the 25th July there was a general meeting of the committees at which a resolution was adopted defining their constitution and sphere of action. The composition of the Central War Industries Committee was regulated as follows:

1. the President and his Deputy, elected at the general meeting of the local committees;
2. ten delegates from the Permanent Council of the Congress (*Sovet S'ezdov*) of Representatives of Industry and Commerce;
3. three representatives from each of the regional committees;
4. the chairmen of the sections of the Central Committee;
5. three representatives of the Union of Zemstvos, and of the Union of Towns respectively;
6. two delegates of the Petrograd and Moscow Municipalities respectively;
7. representatives of the Government, named by the Ministers;
8. five representatives of the Technical Committee;
9. two representatives of the All-Russian Agricultural Chamber (*Vserossiiskaya Sel'skokhozyastvennaya Palata*);
10. ten delegates from the workmen;
11. persons coöpted by the Committee itself, not exceeding eight in number. The total number of members of the Central Committee was one hundred and fifty. The provincial committees were to be constituted on the same lines as the Central Committee, adapting themselves to the local conditions.

The institution of the War Industries Committee met with the general approval of Russian public opinion, and everyone felt the necessity for a more rational organization of industry. Moreover, it was hoped that the coördinated activity of unofficial organizations would mitigate the consequences of official ineptitude.

The rules laid down for the composition of the committees provided for the inclusion of delegates of the workmen. This was a great victory for the democratic sections of public opinion. But under the conditions of the old régime it was difficult to carry this measure into effect. To begin with, the workmen did not enjoy even the relative liberty of meetings granted by other classes, in particular by business men. From the outbreak of the War, the working class became the object of every kind of restriction and administrative repression. Moreover, many of the largest factories had been militarized and the

workmen declared mobilized soldiers. This deprived the working classes of all possibility of organizing themselves and defending their interests. It was, therefore, very difficult for political as well as for purely technical reasons to effect the election of labor delegates.

The Central War Industries Committee understood that without working-class participation, the committees would not have the full sympathy of public opinion. The exclusion of labor would be rightly interpreted as an instance of the habitual unwillingness of the Government to meet the wishes of the population, even in the stress of war. Moreover, the mobilization of industry involved the regulation of the labor conditions, and the increase of its productivity. No satisfactory solution of these problems was attainable without the coöperation of the workmen. But the existing laws deprived factory workmen of all regular and permanent representation.

The Central Committee, however, succeeded in obtaining from the Petrograd authorities permission for the workmen to carry out an election of delegates. All the factories employing more than five hundred workmen were to take part in the election. Every thousand workmen were to return one voter; factories with from five hundred to one thousand workmen were also to return one.

The election of voters in the factories produced great excitement among the workmen. The more intellectual of them were divided during the War into two sections. One section represented the "defeatist" idea, which was prevalent among the extreme wing of the Social-Democratic party, known by the name of Bolsheviks. This section repudiated the notion that the workmen might take a voluntary part in any activity connected with the War. They considered a revolution that should overthrow the Tsarist régime the only aim answering to the interests of Russian labor. These were identical with the interests of the international proletariat, and opposed to those of all bourgeois-capitalistic classes both at home and abroad.

The contrary was held by the section of the Social-Democrats, known as the Mensheviks, by the Socialist-Revolutionary party, and by the great majority of the working classes. Their point of view was known as "defensism" (*oboronchestvo*). They considered that Russia's defeat in the War would bring nothing but harm to the whole country, including the working classes, who were as much interested in the economic welfare and intellectual progress of the

country as anyone else. They thought that though the overthrow of the Tsarist régime was the chief aim of the laboring classes, the War was helping the cause, by revealing the total incompetence of the Government to defend the country. Revolution must take place only when the dissatisfaction of the people, owing to the bad management of the War, had become universal, and everyone had become conscious of the worthlessness of the existing régime.

These fundamental differences of opinion, which divided the working class into two parties, were bound up, on either side, with other considerations. One of these was their respective attitude to the question whether workmen should take a part in the war industries committees.

One party was against their doing so, pointing out the unfavorable political conditions in which the laboring classes had been placed since the beginning of the War, which made it impossible to express their opinion, and would render their participation in the war industries committees a mockery. The political conditions created by the Government gave ample support to this line of argument.

The "defensists," on the contrary, thought that, however adverse the political conditions might be, it was necessary to take advantage of these elections, and of the work of the war industries committees. It would give the workmen the possibility of organizing themselves and of obtaining a permanent representation of the working class. It would serve as a means of voicing their political and social demands, which would influence the work of the committees.

The arguments of those in favor of taking part in the committees prevailed, and the elections of voters took place. In Petrograd, on 27th September 1915, one hundred and seventy-six voters met to elect ten delegates to the Central Committee. The meeting, however, by a small majority passed a resolution in favor of boycotting the war industries committees, and the election of representatives did not take place. Nevertheless the opinion of the majority of the Petrograd workmen was in favor of participation. In Moscow the elections of representatives did take place. New elections were appointed in Petrograd, and ultimately ten representatives of labor were elected.

The Central Committee in Petrograd and the Moscow district committee thus included labor delegates. Later on elections of labor

delegates took place in seventeen of the district committees. In May 1916 there were labor representatives in twenty districts and ninety-eight local committees, one hundred and seven workmen in all.

In the district committees the representatives of labor formed 3.4 per cent of the total membership; the delegates of local representative bodies 16.9 per cent; the representatives of commerce and industry 35.6 per cent; representatives of the government departments 10.7 per cent; of technical associations 20.6 per cent; coöperative societies 1.6 per cent; and of other groups of the population 11.2 per cent.

The representatives of labor in the central committees received from their constituents instructions, which prescribed their line of conduct, and enumerated the political, social, and economic policy they were to support. They formed a separate labor group in the committee. The labor delegates formed similar groups in the provincial committees. In many of the committees, particularly in the Central Committee, the labor delegates were able to exercise a considerable influence, and the committees had to defer to their opinions in questions of labor conditions, and on certain economic points.

The group of labor delegates in the Central Committee became a center of labor representation for all Russia. The group was able to gain the support of the working masses, to influence the workmen in their relation to the War, and to increase the productivity of labor.

Side by side with the mobilization of the heavy industry, the smaller industries were also organized with the help of the Unions of Zemstvos and Towns. On the initiative of the zemstvos, conferences took place, in which representatives of coöperative societies and of the cottage industries, and agronomic and technical instructors took part. These conferences helped to impart method to the distribution of orders among woodworkers, leather-workers, and other artisans.

It is an undoubted fact that this unofficial movement, with its watchword of mobilization of all the forces of the country for the War, contributed in no small degree to increase production for the purposes of defense, and to introduce a more rational organization of industry, trade, and transport. But the movement did not in itself mean the realization of a new economic policy.² The mobilization of

² The activity of the zemstvos and of the towns in the work of supplying the army is the subject of a special study, and therefore is but slightly

industry was spontaneous. It created organizations which acquired great influence in stimulating and controlling private initiative. They created favorable conditions for a new economic State policy. But, being unofficial, the movement could not take the place of government action, and attain ends that were possible only by means of legislation, and of regulation on a national scale.

It was consequently necessary that a close contact should be established between the newly created unofficial bodies and the official instruments of the State's economic policy. It was equally necessary that the State should carry this economic policy much further than could be done by organizations that were the product of the spontaneous initiative of isolated social groups.

touched on here; see *Effect of the War upon Russian Municipalities, and the All-Russian Union of Towns*, by N. I. Astrov and *The Zemstvos, the All-Russian Union of the Zemstvos and the Zemgor*, by T. Polner, Prince Vladimir A. Obelensky, and Sergius P. Turin, in this series of the *Economic and Social History of the World War*.

PART III
FORMS AND METHODS OF CONTROL

CHAPTER I

THE SPECIAL COUNCIL FOR DEFENSE, AND THE WAR INDUSTRIES COMMITTEES

1. *General survey.*

THE State control of industry was secured through two kinds of institutions: the central government offices, and special committees formed *ad hoc*, comprising both official and unofficial members, but forming part of the public executive.

To the first category belonged the Special Council for Defense and the Special Council for Fuel Supply, to the second the committees that were formed for the control of the cotton, linen, woolen, leather, and paper industries.

Alongside of these two groups of organs of government control stood the institutions of an unofficial character, such as the war industries committees and the two Unions of Zemstvos and Towns. These unofficial organizations played an important part in the mobilization of all the economic forces of the country for defense, and in helping to enforce the government control of industry. But their activity can be discussed here only in so far as it is connected with government control. This relates especially to the war industries committees.

The activity of the Special Council for Defense manifested itself chiefly in the work of its Committee on the Metal Industry, which had the control of this industry and the metal market. The Special Council for Fuel Supply controlled the distribution of coal, and the petroleum industry.

We shall now study the activity of each of the Councils and Committees separately. Although the branches of industry controlled by these Councils were widely different, the forms and methods used in applying this control may all be summarized as follows:

- (1) regulation of prices;
- (2) distribution of raw materials, fuel, and manufactured goods;
- (3) distribution of orders, and of purchases;
- (4) control of production, and of sale of produce;

- (5) elimination of middlemen;
- (6) distribution of the raw and semi-manufactured materials at the disposal of the committees among the factories and mills.

These measures were not introduced all at once. They were introduced gradually as the necessity presented itself in each separate case. This was one of the distinguishing features in the evolution of the State regulation of industry during the War. Another feature that characterized it was that the sphere of application of each new measure was gradually extended. At the outset, the measures taken to regulate industry had only those factories in view which were engaged in executing government orders connected with defense, but by degrees the same measures were extended to factories working for the ordinary market whatever their production. In the end all industry came under State control.

2. The Special Council for Defense.

THE duties and powers of the "Special Council for the Discussion and Coördination of Measures for the Defense of the Country" instituted on the 17th August 1915 were defined as follows:

(1) It exercised supreme control over all State-owned factories, arsenals, and workshops, and over all factories employed by the State in manufacturing munition and other articles of supply for the army and navy.

(2) It assisted in every way the erection of new factories for the manufacture of military supplies, and also the adaptation of existing factories to the production of the same.

(3) It regulated the distribution of orders for the army between Russian and foreign factories.

(4) It supervised the execution of these orders.

The composition of this new Special Council differed from that of its predecessor in that among its members, besides the representatives of the different government departments (five members representing the military authorities, one from the Admiralty, one from the Ministries of Finance, Transport, Commerce and Industry, and from the Public Auditor respectively), were the Presidents of the State Council and the Duma, one member representing the All-Russian Union of Zemstvos, one representing the All-Russian Union of Towns, and four representatives of the Central War Industries

Committee. The new Council for Defense, like that which had preceded it, was immediately responsible to the Emperor, and reported to no other official authority.

As neither the intended coöperation between the different factories, nor the regular distribution of orders, nor the control of their execution could be attained by the Council without local executive organs, the constitution of the Council provided for the formation of such bodies.

Accordingly Special Commissioners of the President of the Council were appointed. By a decree of the 10th September boards were formed to assist the Special Commissioners, which received the name of "factory boards" (*Zavodskoe Soveshchanie*). It was their duty to bring about "the desired accord between industry in different localities, and coöperation between factories with a view to the largest possible output of war material."

To attain these ends the factory boards were entrusted with the following functions: they examined the organization of the factories in order to see that their technical forces were used to the best advantage for the manufacture of munitions, and to provide them with everything necessary for their work. They examined all questions of the distribution of orders, as a whole or in part, among factories. They discussed and decided all questions relative to the distribution among the factories of the existing stock of machinery and implements, of the technical staff, workmen, etc. The boards distributed the orders received, and decided, where necessary, to employ new factories on the work of army supply.

The boards were composed of representatives of the government departments concerned (*viz.*, the War Office, Admiralty, and Ministers of Commerce and Industry and of Transport); of not less than three members of the local war industries committee, and in Petrograd and Moscow of two representatives of the Central Committee, and of representatives of the zemstvos and municipalities.

For the discharge of the duties entrusted to them, the powers of the President of the Special Council for Defense were delegated to the factory boards. These powers were very wide, and provided for a far-reaching State control over the whole of the work of the industries supplying munitions.

The factory boards had the right:

(1) to require any firm to undertake the immediate execution of State orders in preference to any others ;

(2) to change the existing order of execution of work ;

(3) to demand information on all points concerning the business of any firm ;

(4) to inspect all commercial and industrial enterprises ;

(5) to examine all books and documents relating to the business, inventories showing the amount of machinery, materials, and stock of goods, all contracts and obligations entered into by a firm for the supply of materials, manufactured goods, or machinery ;

(6) to require any transport undertaking to accept and immediately to transport all the Committee's consignments in preference to any other goods.

The wide control exercised by the Special Council through the medium of the factory boards over all enterprises engaged on war work could become effective only if the infringement of its demands entailed a penalty. Consequently the factory boards were given the right to enforce, subject to the approval of the Special Council, the following measures :

(1) the removal from his post of any director or manager of an enterprise, whether State-owned or private, engaged on war work ;

(2) the partial or complete sequestration of factories ;

(3) the temporary sequestration or closing of factories ;

Lastly, the boards were empowered to intervene in two other important matters.

(i) They had the right to decide the rate of wages, *i.e.*, they could extend State control to the regulation of contracts between employers and workmen. Factory-owners often complained of the rise of wages, adducing this as a reason for the increased cost of production and for their inability to accept an order. On the other hand, the high rate of wages prevailing in the munition industries attracted the mass of workers to these industries. The unwillingness of certain factory owners to accept the high rate of wages threatened these factories with a still greater shortage of labor.

The Special Council was naturally interested in the execution of its orders for munitions, and was therefore anxious, on the one hand, that wages should be high enough to attract labor, but, on the other hand, that they should not be so high as to raise unduly the cost of

production, the burden of which had ultimately to be borne by the Treasury.

(ii) The boards were also empowered to regulate the amount of output of individual enterprises.

The increase of the production of munitions involved first the enlargement of such existing factories as were suited for work of this description, and had carried it on previously. But the huge demands of the army, and the variety of articles needed, soon rendered the existing factories insufficient. It became necessary to utilize and adapt to purposes of defense all existing factories, not only those whose production was more or less allied in kind to the production of munitions, but all whose technical equipment allowed of this adaptation.

Accordingly the factory boards were authorized to inspect all factories in their respective districts, and to distribute the orders in such manner as to make full use of their productive capacity. Thus the greatest possible number of factories would be drawn into the work of military supply. With this end in view the boards had to have recourse to two measures of a different character. Having estimated to what extent a factory could be adapted to war work, they assisted the owners to adapt it, but the factory henceforward came under the control of the Special Council. Where the factory as a whole could not be adapted, but part of its plant and materials could be used with advantage in another factory producing munitions, the factory boards had the right to transfer these articles, as well as the workmen, from one factory to another. This right of transfer gave the Council a great hold on industry.

The Special Council, which was chiefly an administrative body, was principally occupied in drawing up regulations with a view to the improvement of the output in munition factories. It could not, however, confine itself to this object. In drawing up its regulations it was forced to consider them also in their economic bearing.

We have just seen that the factory boards did not merely produce administrative regulations, but adopted measures that gradually shaped themselves into a definite social and economic policy. The same may be said of the Special Council. The powers of this latter body were not restricted to the right of requisitioning machinery, and raw and semi-manufactured material, or of sequestering fac-

tories, land, and buildings for the use of the State. It also controlled the requisitioned property. And this property might be handed over to private as well as to State-owned enterprises.

3. *War industries committees.*

The activity of the Special Council for Defense was closely connected with that of the Central War Industries Committee, and through the latter with the local committees. On the other hand, the Committee could act only in so far as it was connected with the Council.

It may be said that the Central Committee in the capital and the district committees in the provinces were the most effective agents of the Special Council for Defense. All that was done or decided by the latter was carried into effect only through the coöperation of the Committee, and its participation in the deliberations of the Council. At the same time, it was the initiative of the War Industries Committee that stimulated the Council to the greater part of its activity.

The intervention of the State in economic matters, which found such wide application during the War in all the belligerent countries, has been the subject of vigorous criticism. The critics find much to condemn in the State regulation of economic conditions. The very fact of regulation is sometimes regarded as one of the circumstances which hinders rather than helps the struggle against the disorganization of economic life due to the War.

A distinctive feature of State control over industry engaged in war work was that the State, as represented by the Council, took no part in industrial activity, if we omit the few cases where sequestered factories became State factories, after which they were placed on just the same footing as the ordinary State-owned factories which existed before the War.

As we have already pointed out, the activity of the Special Council was chiefly administrative. To a great degree the same may be said of the central and local war industries committees. The main task of the committees was to superintend the distribution of orders, to enroll as wide a circle of factories as possible, to supervise their work in the interests of national defense, and to create conditions favorable to this work. They are an organizing and stimulating force.

The control, however, exercised by the State through the Special Council, which touched the most complicated and delicate questions of industry, was effective only owing to the fact that the Council's regulations were put into practice by the industrialists themselves—by practical business men.

The conditions in Russia under the old régime were not such as to conduce to a wide self-organization and self-help on the part of the industrial classes. The bureaucratic institutions, such as the Special Council for Defense and all the offices pertaining to it, viewed the activities of the Central War Industries Committee with a far from friendly eye. They saw in the Committee a competitor in the event of a successful outcome of the War, and the embodiment of a peculiar, self-originated, unofficial control. Moreover, the habit of the old bureaucracy of making private "friendly" contracts with the State purveyors made the officials of the Council of the Central Artillery Department and of the Army Supply Department prefer the old rules for the distribution and delivery of orders.

On the other hand, the manufacturers did not show themselves as ready as might have been wished to coöperate with the war industries committees, whose aim was to concentrate the distribution and delivery of orders in their own hands. Their institution was regarded by many factory owners as an attack on the enormous profits they were enjoying, owing to the prosperous state of trade and the friendly relations that they entertained with the government offices.

The organizers of the war industries committees were the most cultured and liberal-minded men of the industrial and business world. In the interests of the nation they desired to put an end to the feverish speculation and competition of the enterprises engaged on war work.

The big firms had old-established connections with the different government offices, were better supplied with materials and machinery than the smaller firms, and in general were better placed on the market. They were in no need of help from the committees. They had no use for them, and had no wish to be taken under control, or to be in any way restricted in their business. The military bureaucrats and the officers of the Special Council received active support from these firms in their policy of retarding and thwarting the war industries committees. The small and medium-sized undertakings, on the

contrary, were the chief sufferers from the first period of disorganization of the market. They were short of materials, machinery, and workmen. They needed help in getting their goods transported, in obtaining government orders, and in adapting their plants to the requirements of war work. For this reason it was the small industry that first gave active support to the committees.

It was only by degrees, and after the importance and influence of the organizing work of the committees had developed, that the Special Council began to appreciate their value and to collaborate with them. But up to the very moment of the revolution of March 1917 the relations between the Council and the war industries committees remained very unsatisfactory. Under pretext of the political nature of the committees' activity, of that of their labor groups in particular, efforts were even made to suppress them completely.

Once organized, the war industries committees drew up the following plan of action. Each committee was to begin by ascertaining the number of factories adaptable to war work in its district. It was then to proceed to ascertain the amount of raw material and the number of workmen available in the district. The information obtained was to be communicated to the Central Committee, which, in the first place, informed itself as to the measure and nature of the requirements of the army. Then, on the strength of the information thus obtained as to the needs of the army on the one hand, and the means of production on the other, the Committee would decide on the best use to be made of the existing resources for meeting army requirements.

One of the aims of the committees was to concentrate all government orders in their hands, and to obtain the control of the distribution of the orders between the firms represented on the local committees.

Lastly, for the better execution of these orders, the Central Committee undertook the distribution of raw materials, of labor, and of machinery among the several factories and groups of factories, according to the information received from the district committees as to the needs of each. One of the principal tasks of the Central Committee was to furnish the factories with lathes, of which there was a great shortage. They were indispensable for the equipment of the factories that had been diverted from their customary work. But

lathes had hardly at all been manufactured in Russia, and were imported from abroad. The manufacturing of machine tools and lathes was declared a matter of national importance, a patriotic duty.

In this line of conduct the Central Committee based itself on the consideration that the various kinds of munitions could be produced in abundance by the numerous workshops and by cottage industry all over Russia. During the first year of the War the production of projectiles had been scattered all over Russia. It was now to be regulated so as to utilize all the mechanical appliances of the smaller workshops, and to allow the larger engineering shops, which were better adapted to the production of lathes, to concentrate on this production. The Committee took steps to secure that all the engineering shops should work to their utmost capacity. The factories that were not properly adapted to the manufacture of projectiles, instead of producing small quantities of these, were to turn out lathes and machinery for other works and factories that could produce the same projectiles in great quantities.

The Special Council issued regulations (dated 12th November 1915) regarding the production of munitions under the control of the war industries committees. In pursuance of these rules the committees were to place orders in their own name, payment for which was to be made by the Treasury in any form of legal tender. The committees receiving orders from the government departments were required to submit reports twice a month as to the prices at which orders had been placed, the quantities of articles ordered, and the expected dates of delivery; also a general review of the progress of munition work. Orders were to be allocated after a minute examination of each individual factory.

Prices were not to be fixed by the committees, but in most cases depended on the instructions accompanying the orders issued by the government departments. A special staff of inspectors was appointed to inspect goods on delivery, and other special inspectors were assigned to the supervision of factories executing government orders.

The funds administered by the Committee were obtained from the government departments; under a decision of the Special Council they represented 50 per cent of the whole amount expended on muni-

tions by the said departments. The committees were authorized to make advance payments to manufacturers in respect of the orders placed with them, and availed themselves of this power. But these advances were made with the greatest discrimination. The application for an advance was examined by the Central Committee, on its being certified that the order had been taken up, and after an inspection of the technical capacity of the factory. The application was then referred to the department concerned, and passed on to the financial department, which investigated the financial status of the business, inspected its books, and examined its statement of accounts and its balance for at least the two preceding years. The advance never exceeded 60 per cent of the value of the order and was never made without obtaining some form of security. Before the second and following instalments of the advance were paid, the manufacturer was obliged to account for the employment of the sums already advanced, and to prove that they had been spent on the execution of the orders received. Any manufacturer receiving advances was obliged to allow the agents of the Committee to supervise the expenditure of the sums advanced.

The expenses of the committees themselves were covered by the commercial profit made by them on the purchase of metals abroad, so long as this business was left in their hands, and afterwards by a certain commission on all the orders placed by them. Under the rules introduced by the Committee, factories built or owned by it were required to deliver munitions to the Government at cost price.

CHAPTER II

CONTROL OF THE METAL INDUSTRY AND MARKET

THE work of the Special Council for Defense and of the factory boards consisted almost entirely in the control of the iron foundries and metal-working industries, which were of prime importance to national defense. Fuel and clothing for the army were, naturally, no less important. And these branches of industry—the extraction of coal and petroleum and the manufacture of textiles—were subjected to a no less active government control. But they were dealt with by special regulating agencies. As for the metal-working industry it became the object of the direct care of the Special Council for Defense and of the Central War Industries Committee. It was also specially supervised by the above-mentioned factory boards.

The shortage of metals was the first and most serious danger with which war industry was confronted. How great was this deficiency, in the very first year of the War, may be judged from the following figures:

PRODUCTION OF METALS, 1913-1915

(In thousands of puds and of tons)

	<i>1913</i>	<i>1914</i>	<i>1915</i>
Pig-iron produced	282,961 (4,564)	264,133 (4,260)	224,970 (3,628)
Cast and wrought iron and steel produced	246,551 (3,976)	240,032 (3,871)	199,347 (3,215)
Pig-iron on the market	70,465 (1,139)	59,827 (965)	49,904 (805)
Cast and wrought iron and steel on the market	192,258 (3,100)	182,344 (2,941)	144,419 (2,329)
<i>Reserves at foundries at end of year</i>			
Pig-iron	32,199 (519)	31,297 (504)	32,553 (525)
Cast and wrought iron and steel	22,190 (358)	25,934 (418)	29,889 (482)

If we deduct from the figures for 1913 the output of Poland, which amounted to about 26 million puds (419,000 tons) of pig-

iron and 27 million (435,000 tons) of cast and wrought iron and steel, we still see a great decrease in the production of the blast furnaces and iron foundries. In 1916, the output of pig-iron fell to 231,860,000 puds (3,739,000 tons) and that of iron and steel rose to 205,860,000 puds (3,320,000 tons). This was an indication that the iron foundries endeavored to obtain a greater quantity of metal for their production, and that the output of manufactured iron wares required by the army had increased. But as this increase was accompanied by a decrease in the output of pig-iron, it is easy to imagine the fierce competition for the purchase of metals, on both the home and foreign markets.

In pre-war times private orders on the market formed from 70 to 92 per cent of the total demand. Now all the metal offered at current prices was used for government orders, and the ordinary market had to be content with iron held back by profiteers. The price of metals had therefore risen in an extraordinary degree. From the very first it had been apparent that the home output of metals would not be sufficient to satisfy the war demand. The unstable exchange of the ruble, the impediments to transport, and even political obstacles, combined to make the purchase of foreign metals a very troublesome matter. In order to overcome these difficulties, and on the initiative of the War Industries Committee, a special committee was formed (14th November 1915) to deal with the supply of foreign metals. It was subordinate to the Central War Industries Committee and had agents and branches abroad.

Before long this committee was incorporated in the Special Council, but its sphere of action and its importance remained the same as before. In practice it remained under the influence of the Central War Industries Committee, which continued to act as its principal agent.

The first committee for regulating the supply of metals consisted of fourteen members, including five representatives of government departments, five delegates from the War Industries Committee, and two from the Union of Zemstvos and Union of Towns respectively.

The work of the committee consisted in

- (1) ascertaining the requirements of munition factories and auxiliary enterprises;

- (2) purchasing at home or abroad the required quantity of metal;

- (3) supplying metal to State and private factories;
- (4) assisting factories in the purchase of foreign metals and of foreign currency.

The committee, as above stated, was formed on the initiative of the Central War Industries Committee. But the overwhelming importance of the task entrusted to it very soon became evident. A ukase of 21st January 1916 instituted a new office of Commissioner of the President of the Special Council, who was charged with the same task of supplying foreign metals to the factories working for national defense.

Meanwhile the decrease in the home production of metals and their constantly increasing price made the difficulties of supply so great, and the distribution between the different factories so unequal, that it became necessary to create a special organ for the systematic distribution of home-produced metal to the factories. Accordingly, by a decision of the 17th December 1915, the Special Council created the office of Commissioner for the Affairs of the Metal Industry, with a committee to help him. The delegate was to supervise the supply of iron and steel to the factories working for national defense. The committee attached to him was composed of thirteen members; including six government officials, and single representatives of the privately-owned railways, the Central War Industries Committee, the Union of Zemstvos, the Union of Towns, the Permanent Council of the Congress of Representatives of Industry and Commerce, and the Permanent Council of the Congress of the Mine-owners of the Ural Mountains and of southern Russia.

The duties devolving on this committee were defined as follows:

- (1) to ascertain the aggregate demand for metals for defense purposes, and for the other needs of the State, classified according to the kind of metal required, the class of consumer, and the district;
- (2) to ascertain, on the basis of information supplied by the factory boards and other agencies, the productive capacity of individual firms, and the extent to which this capacity was utilized;
- (3) to forward a regular supply of raw material, fuel, and labor to the blast furnaces and foundries;
- (4) to distribute a sufficient supply of metals to munition factories;

(5) to instruct the factory boards with regard to the order in which the supply of metals was to be delivered to the several firms;

(6) to release factories, where necessary, from contracts into which they had entered;

(7) to ascertain the prices of metals at the moment of placing an order;

(8) to direct the transport, by land or water, of metals required for the factories.

On the 15th September 1916 the Minister of Commerce and Industry was given the power of fixing the prices at which metals should be sold, both by producers and dealers. The Minister was authorized to require manufacturers to supply information as to the cost price and market price of goods, to examine their accounts and documents, to issue rules for the supervision of trade, and to annul contracts of sale at prices above the maximum. The necessity for these measures may be gathered from the following figures, which show the fluctuation of prices:

PRICES OF PIG-IRON FROM SOUTHERN RUSSIA

(In copecks per pud)

	1913	1915	1916
January	70- 73	73- 74	110-123
April	70- 72	73- 76	125-135
July	72	82- 88	100-190
October	68- 72	82- 88	130*

Merchant iron

January	144-153	159-163	220
April	144-153	171-175	250-260
July	144-153	171-190	230*
October	143-158	186-190	230*

The prices of iron and steel were now fixed by official regulation. But the production was not increased, and the shortage continued as acute as ever. The unofficial market prices continued to rise, and were far higher than the prices fixed by the Government. The Metal

* Prices marked with an asterisk (*) are the maximum fixed by the Minister.

Industry Committee was therefore obliged to have recourse to other measures and to extend to the utmost its control over the distribution of iron and steel on the market.

The Committee had at its disposal all the requisitions and evacuated metal, *i.e.*, those reserves which had been brought away when factories near the front were evacuated. Moreover, the Committee took over the control of all scrap-iron accumulated during years in the State factories, and in the railway workshops and mines.

In spite of all this, the shortage of metals favored intense speculation on the home market. It often happened that consignments of metal were diverted from the munitions factories, or reached them only through a series of middlemen.

Owing to the congestion of transport, the factories were frequently crowded with manufactured goods ready for delivery. In 1915, the reserve of pig-iron amounted to 30.6 million puds (493,000 tons) as compared with 29.7 million puds (479,000 tons) in 1913; the reserve of semi-manufactured iron goods in 1916 amounted to 13.5 million puds (217,000 tons) as compared with 8.9 million puds (143,000 tons) in 1913. The reserve of completed articles in 1915 was 28.7 million (463,000 tons), and 24.1 million puds (388,000 tons) in 1916, as compared with 20.7 million puds (334,000 tons) in 1913. The fixing of the prices of pig-iron resulted in the producers keeping it off the market. Every maker tried to keep back as much iron as possible, in the hope of a further rise of prices, or of finding a good customer. The quantity of pig-iron delivered to even the smaller foundries tended to decrease, because the enterprises engaged on munition work, which proved particularly profitable, endeavored to secure all the pig-iron for themselves. If in these conditions the metal market had been left unregulated; if, in other words, the producers had been allowed complete freedom in the sale of their iron, these factories, whose work for national defense it was above all necessary to encourage, might have been the first to find themselves without the necessary supply of metal.

In order to prevent this untoward contingency, the Committee on the 10th June 1916 issued regulations for the control of the sale and purchase of metals. The object of these regulations was to suppress profiteering on the metal market, and to secure that the supply of metals should be utilized to the best advantage by the factories en-

gaged on defense work. In virtue of these rules, an application for metal was satisfied only on the presentation of a certificate by the applicant that the metal was really required for defense purposes. This certificate was given either by the government department that had placed the order, or by an agent of that department authorized to issue such certificates, or by an agent of the Special Council for Defense or lastly by a government inspector of metals at the foundries.

Every certificate was to show

(1) the number and date of the order for munitions which necessitated the purchase of metal;

(2) the amount required, and the date when the delivery of the metal was required;

(3) the name of the department or organization that had placed the order;

(4) the name of the person or factory receiving the order, and name of the bearer of certificate.

For every kind of metal and metal work (merchant iron, sheet-iron, tin, rails, ties, fishplates, girders, roof iron, copper, etc.), separate certificates were given. Every consignment of metal from the foundries was addressed personally to the receiver indicated in the certificate. Under these conditions, private dealings in metal were put an end to. It is true that an illicit profiteering trade continued, and even the Committee's certificates became a marketable commodity; but at any rate the manufacture of metals was subjected to a strict control and was concentrated in the State factories, or in such of the private factories as were under the immediate control of the Government or of the industries committees.

After the formation of the Metal Industry Committee, the great metal syndicate *Prodameta*, which included all the chief iron works of the south of Russia, and which held a commanding position in the metal market before the War, lost nearly all its importance. It could no longer receive private orders, and all the State orders passed through the Metal Committee.

The decrease in the activity of the private market may be seen from the following table, which shows the amount of orders received by *Prodameta* before and during the War.

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	1913	1914	1915	1916
	<i>(in millions of puds and thousands of tons)</i>			
(1) Sheet-iron	27.3 (440)	15.5 (250)	14.7 (237)	14.7 (237)
(2) Plates and girders	15.4 (248)	13.2 (212)	11.6 (187)	3.4 (54)
(3) Merchant iron	57.6 (929)	53.5 (863)	59.3 (956)	50.3 (811)
Total	100.3 (1,617)	82.2 (1,325)	85.6 (1,380)	68.4 (1,102)

CHAPTER III

CONTROL OF FUEL SUPPLY

1. *Special Council for Fuel Supply.*

As stated above, one of the four Special Councils instituted by the Duma was the "Special Council for the coördination of measures regulating the supply of fuel to the railways, Government and public works, and factories working for national defense." In virtue of the decree of the 17th August 1915 the Special Council for Fuel became a government institution on the same footing of independence as the Special Council for Defense, and it was composed on the same lines. The matters with which the Council had to deal were defined in the powers conferred on the President and were as follows:

It was authorized:

- (1) to require all persons or companies engaged in the extraction or preparation of fuel to accept and carry out his orders for supplies in preference to any others, even though of prior date;
- (2) to require the said enterprises to furnish full information in regard to their business;
- (3) to sequester, where necessary, any of these enterprises;
- (4) to remove, if necessary, directors or managers of enterprises;
- (5) to enforce wholesale or partial requisitions of fuel;
- (6) to inspect enterprises and examine their books, documents, stock of fuel, and contracts;
- (7) to give orders to any extent for fuel abroad or at home;
- (8) to fix prices for all kinds of fuel, and to supply consumers with it;
- (9) to transfer the fuel ordered by one State department to another, or to private enterprises working for national defense;
- (10) to sell to private persons engaged on war work the surplus stock of fuel at a fixed price, after having satisfied all the demands of national defense, communications, and important public works;
- (11) to regulate the distribution of fuel among consumers;
- (12) to fix the rates of wages in enterprises extracting hard or liquid fuels.

Local commissioners were appointed to carry out the instructions

of the President. They were instructed to form committees of persons thought likely to be useful, but the inclusion of representatives of the All-Russian Unions of Zemstvos and of Towns, and of the war industries committees, was obligatory.

The price of fuel requisitioned or supplied on governmental orders was regulated by special provincial committees, consisting of representatives of the Government, of the provincial and district zemstvos, of the municipalities, coöperative societies, and the trade exchange committees, or industrial and commercial associations for each of the different kinds of fuel. The Chief Commissioner had his residence in Kharkov. The local commissioners, with the committees attached to each, were under his order. The local agents or delegates had deputy agents for each separate district.

The Special Council began by fixing prices; then went on to regulate the distribution of fuel, and finally concentrated in its hands the whole trade in hard mineral fuel.

2. Control of prices of fuel.

The first kind of fuel of which the price was fixed by Government was anthracite. The deficiency of this kind of fuel was felt from the very outset of the War, and under the influence of the great demand, the prices had, towards the middle of 1915, considerably increased. In Kharkov from 14 copecks per pud, the price in July 1914, it rose to 26 copecks in July 1915. By resolutions of the Special Council for Fuel, issued on the 8th and 21st October, the maximum prices for anthracite were fixed at from 9 to 16 copecks a pud, according to its quality.

The prices of coal were not at first subjected to any control, as regards government orders, or on the general market. But as prices rose, the Treasury found itself involved in considerable increase of expenditure. As we shall see further on, the measure to which the Special Council most frequently had recourse was requisition, with the help of which the State tried to meet the demands first of the railways and secondly of the munition factories.

As this measure became more general, the question of the price of the requisitioned coal arose, and so-called "requisition prices" were fixed; *viz.*, the prices paid by Government for requisitioned coal. But as the distribution of fuel began to be effected exclusively by

the Government, which either directly purchased the coal, or regulated its transport to the various districts and consumers, and requisition became frequent, these prices came to be an important factor on the market. Besides, everyone in need of fuel began to apply to the Council and the local agencies of the Council for this right to be exercised in their favor, and thus the "requisition prices" came to have a predominating importance on the market. But as the fixed prices were originally intended not as a normal maximum, but as a kind of reprisal against profiteers, the spread of these prices was more a hindrance than a help to the coal trade.

The abnormal conditions of the market were still further enhanced by the fact that fixed prices applied to the Donetz Basin alone. The fuel extracted in the Moscow and Ural districts was not subjected to any control. This on the one hand favored a certain development in the mining industry in these districts, but on the other hand it prevented the northern provinces from profiting in a sufficient degree by the use of this fuel.¹

As has already been mentioned, owing to the great demand for coal and the insufficiency of output, and chiefly to the difficulties of transport by rail from the Donetz Basin, the demand for liquid fuel increased considerably. This demand caused a great rise in the price of petroleum.

The cessation of export to foreign countries and to the Black Sea ports at the beginning of the War caused the price of petroleum to fall. From 44.6 copecks the pud, which was the price in June 1914, it fell to 25.6 copecks in November 1914, to 30.6 copecks in December 1914, and to 28.8 in January 1915. But in February, following the general increase in the demand for fuel, prices began to rise. They rose to 48.3 copecks in July and to 54.2 in December 1915. Then the Special Council thought it was time to intervene, and fixed the price at 45.5 copecks per pud.²

Up to July 1916 there was no further increase in prices; they even had a certain downward tendency. Their stability, however, benefited only those who could consume the petroleum on the spot. But as the tariffs on the Volga boats rose greatly, and speculation

¹ For more details on requisition prices and the influence they had see B. N. Sokolov, *Russian Coal-Mining Industry during the War*, in this series of the *Economic and Social History of the World War*.

² Cf. Appendix XX.

was rife at the points of destination, the stability of prices in Baku hardly benefited consumers at a distance. The Special Council was therefore obliged in February 1916 to fix a maximum for petroleum and petroleum refuse at all the wharves in the Volga and Kama and in Petrograd and Moscow. In September 1916, the same was done for the wharves on the Oka. Thus the price of petroleum was fixed not only at the place of output, but also at all the river ports and the most important centers of consumption.

After the prices had been fixed, it was discovered that these prices were apt to be increased to an unexpected extent owing to the absence of regulations regarding the charges for loading and for the use of tank-wagons on the railways. By resolutions passed on the 27th January, and 17th and 30th March 1916, a maximum charge was fixed for pumping petroleum out of the boats, for filling the tank-wagons, and for the use of the latter. Finally it was found necessary to fix the price of petroleum sold to the petroleum-refining factories.

The fixing of prices for petroleum brought about a rise in the price of kerosene, and subsequently a kerosene famine, felt acutely by the bulk of the population. In July 1916 the Special Council fixed the price of this product, and later on of briquettes. Thus by degrees the prices of the most important mineral fuels and their by-products came to be fixed. But State control did not confine itself to the fixing of prices for coal and petroleum. Its chief preoccupation was the systematic distribution of these fuels.

3. Distribution of fuel.

The problem of fuel supply met with difficulties from the very outset of the War, owing firstly to decreased output, decreased imports, and the loss of the Dombrowa Basin; and secondly owing to the great distance between the chief sources of supply and the important centers of consumption.

The absolute and relative shortage of solid mineral fuel presented two kinds of problems to the Special Council, relating respectively to the regular distribution to the consumers and to the increase of output. But no rational apportionment of fuel among consumers was possible unless the whole trade was brought under the control of the State. The Special Council was gradually forced by circumstances to undertake the control of the sale of fuel, and to extend it

more and more until it ended practically in a State monopoly. The regulation of 11th November 1915 classified consumers into five categories in order of priority, according to their importance to the State;³ and it was the duty of the district commissioner of the Special Council and the district committees to assess the requirements of the different categories.

All the consumers of Donetz coal were allowed to buy it only in the quantity and in the order of priority fixed for the particular category to which they were assigned by the commissioners of the Special Council in accordance with the interests of national defense and of the public in general. The surrender by one consumer to another of his allotment of coal was strictly forbidden. Mine-owners were required to give information as to the locality of their mines, specifying the quality of the coal and the quantity available for sale.

But the classification into categories and the assignment of a ration for each could not be rigidly carried out. The commissioners always had a certain surplus quantity on their hands and the regulations issued on the 13th-17th February 1916 (which were a further development of those issued in November 1915) allowed this surplus to be distributed if some urgent demand arose during the month. If a consignment of coal at a railway station was not claimed within a certain time, it was liable to be requisitioned, and the local commissioner could make it over to consumers for one of the first four categories. The same rule obtained for the coal evacuated from the districts occupied by the enemy.

The Special Council elaborated a plan for the regular supply of fuel to all consumers in the Empire. This plan was based on a rational allotment of regions according to the kind of fuel and the place of its extraction. At first this system was applied only to the Donetz coal, but from the middle of 1916 it was extended to the Moscow and Ural coal, to liquid fuel, and to kerosene, benzine, and lubricating oil. In this sphere the Special Council for Fuel coöperated with the Special Council for the Coördination of Transport of fuel, foodstuffs, and military stores. This latter Special Council was empowered to issue regulations for the receipt, consignment, transport, storage, loading, and unloading of goods. It had the right of compulsory requisition of rolling-stock and warehouses, whether

³ For further details see B. N. Sokolov, *op. cit.*

owned by private persons, companies, or government departments, and also of steamboats, barges, and other sea and river craft. In case of shortage of rolling-stock and the impossibility of carrying all the fuel required from the Donetz district to its destination, the monthly quota was divided into three series, which were transported in a fixed order of priority.

All the government institutions, public works, firms, or individuals desiring to receive coal (with the exception of the navy, the railways, and certain specified metal works) were obliged to declare to the local commissioner in advance, at a date specified for each district, the amount they wished to obtain, and purpose for which it was required, and the mine from which the coal was to be delivered.

The same rules were laid down in the middle of 1916 for the supply of petroleum. The Special Council, in the distribution both of coal and petroleum, had recourse to the so-called system of distributive lists. Consumers and depots could get no fuel except on the strength of the distributive lists, at specified periods and in exactly the quantities demanded, and in the order of priority laid down in the list, according to the importance of each individual claim for the purposes of national defense. Rules for the preparation of the lists were laid down by an instruction of the Special Council issued on 9th May 1916.

The district commissioners reported to the Chief Commissioner the amount of fuel necessary for the following month, with a specification of the kind of coal required. The Chief Commissioner then reported to the Special Council on the needs of the iron foundries of South Russia, of the shipping companies, of the navy, and of the railways; and on the transport facilities likely to be available. The coal inspector reported on the output. The offices of the Special Council then drew up lists for the distribution of fuel to the following categories:

- (a) the navy;
- (b) the railways;
- (c) the shipping companies;
- (d) iron foundries and iron mines, strictly specified;
- (e) other consumers in the nine districts.

The procedure for the distribution of petroleum, according to the rules issued on the 18th June 1916, was slightly different. The in-

formation as to the expected demand and supply was forwarded by the local commissioner to the Chief Commissioner. The latter, on the strength of the information, drew up a list of consumers, according to categories and districts, and determined the amount of fuel to be distributed in the course of the year to the several persons and districts. From these lists a general list for the year was drawn up, for the whole Empire, of all the consumers of liquid fuel. On the basis of this list, a statement was prepared showing the quantity to be transported in each month by rail for the individual consumers in the several districts.

In case the effective capacity of the railways or the supply of tank-wagons was insufficient for the delivery of the full amount of petroleum, the portion allotted to the shipping companies and the railways was to be delivered at any cost, also 90 per cent of the fuel allotted to the oil-stores; and only after these demands had been satisfied were the other consumers to be supplied in the established order of priority. The actual realization of this scheme, however, depended on the regularity of the railway service and river transport. The former discharged its functions very badly, and a great part of the Donetz coal remained at the pitheads.

The disparity between the output of coal in the Donetz Basin and the quantity removed by rail is shown in the following table.⁴

	<i>Output</i>	<i>Total</i>	<i>Removed</i>
			<i>By rail</i>
	<i>(in millions of puds and of tons)</i>		
1913 2nd half-year	786 (12.6)	587 (9.4)	516 (8.3)
1914 1st half-year	912 (14.7)	681 (10.9)	601 (9.7)
2nd half-year	800 (12.9)	572 (9.2)	501 (8.0)
1915 1st half-year	790 (12.7)	642 (10.3)	575 (9.2)
2nd half-year	833 (13.4)	525 (8.4)	455 (7.3)
1916 1st half-year	814 (13.1)	743 (11.9)	686 (11.0)

It must, however, be observed that the Donetz mines exported more coal to the north and northwest than before the War, when those provinces were supplied with foreign coal. For instance in 1915 the amount of coal delivered to the western provinces was 92 million puds or 1,480,000 tons, as compared with 44 million puds (709,000 tons) in 1914; 83 million puds (1,339,000 tons) were de-

⁴ See Appendices XXI, XXVIII, and XXIX.

livered to the north in 1915 as compared with 18 million puds (290,000 tons) in 1914. On the other hand the deliveries to the south and southeast fell from 106 million puds (1,620,000 tons) to 64 millions (1,030,000 tons).

The Special Council did not succeed in supplying with Donetz coal the consumers who needed it most. Thus the distribution of coal among the several categories of consumers was as follows:⁵

(In millions of puds and of tons)

	1913	1914	1915
Railways	320 (5.1)	403 (6.5)	480 (7.7)
Iron foundries	267 (4.3)	277 (4.4)	259 (4.1)
Metal works	36 (0.6)	41 (0.7)	38 (0.6)
Sugar mills	62 (1.0)	61 (1.0)	107 (1.7)
Other factories	136 (2.1)	150 (2.4)	131 (2.1)
Shipping	16 (0.3)	19 (0.3)	56 (0.9)
Other consumers	298 (4.8)	268 (4.3)	105 (1.7)
Total	1,135 (18.2)	1,219 (19.6)	1,176 (18.8)

In 1916 the railways received 590 million puds (9,500,000 tons) as compared with 403 million puds (6,500,000 tons) in 1914; whereas all the industry not employed in war work received only 289 million puds (4,700,000 tons) as against 529 millions (8,500,000 tons) in 1914. It is evident, therefore, that the railways were the object of special care.⁶ Nevertheless, even this privileged treatment accorded to the railways did not lead to a solution of the transport problem.

The unsatisfactory results of this state of things were not confined to the difficulty of supplying the necessary fuel, but it also led to an accumulation of considerable quantities of coal at the mines. The coal that remained unremoved amounted to about 30 per cent of the demand. The stock of unremoved coal in December 1915 was 170 million puds (2.7 million tons). In March 1916 it attained the figure of 193 million puds (3.1 million tons). The accumulation at the pits of coal that could not be carried away, automatically reduced the output.

With a view to preventing this decrease in output and assuring

⁵ Appendices XXI, XXVIII, and XXIX.

⁶ For further particulars see B. N. Sokolov, *op. cit.*

not only the normal working of the collieries but encouraging a greater activity in the industry, the Special Council adopted a series of important measures. On the 6th November 1915 and on the 7th March 1916 it issued certain rules, on the basis of which the Treasury undertook to purchase all the accumulation of coal at the mines. All the coal extracted in any month in excess of the output of the first twenty days of the preceding month amounting to not less than 25,000 puds (400 tons) for a small colliery and also all coal extracted in excess of 600,000 puds (9,600 tons) for a large colliery was considered accumulation. In the first two months of 1916 the State purchased 10 million puds (160,000 tons) of coal and 6.5 million puds (104,000 tons) of anthracite, representing a sum of 2,300,000 rubles (*c.* £150,000).

The obligation undertaken by the State of buying the accumulation of coal by which the mines were embarrassed involved another measure, that of instituting a body of coal inspectors attached to the Special Council for Fuel. These inspectors were entrusted with the following duties:

(1) the investigation of the amount of coal accumulated at the mines, and also that of the contracts entered into by them for delivery to consumers, and of the amount required for their own needs. The inspector was authorized, where necessary, to obtain the information he needed by examination of the firm's books;

(2) the inspection and reception of the fuel purchased by the State; it had also to see to the exact observance of all the rules for the safety of the purchased coal;

(3) the verification of the commercial stability of the colliery of whom the coal had been purchased;

(4) the examination of the quality of the fuel extracted by the colliery;

(5) the investigation and verification of the status of each firm extracting and producing fuel, and of its prospective output; the ascertainment of the amount of coal needed for the preparation of coke and briquettes, and for the consumption of the industries situated in the neighborhood, and of the quantity the colliery could send away;

(6) the verification of the demand for fuel for the mining and smelting industries.

These functions, entrusted to the newly instituted inspectorate, were so extensive that they gave them in practice almost complete control over the whole mining industry. Freedom of commerce practically disappeared from the coal market. A little later (decree of the 8th August 1916) the inspectorate was further entrusted with the supervision of the quality of all coal placed on the market. The inspectors were to examine the composition of the ash of all coal carried by rail.

All the measures taken for the regular distribution and output of coal did not succeed in satisfying the demand of the railways and of those industries which were of vital importance to national defense. They influenced the market only to a small extent, and it remained, apart from State control of prices, wholly under the influence of the laws of supply and demand.

The State was to intervene in this most important aspect of the fuel problem. In doing so it followed the precedent that it had established in dealing with the supply of cotton, wool, and leather. The problem consisted in seeing that the consumers who had a right to obtain fuel actually got it from the producers. The State had to take the supply of coal under its own control, and regulate its sale and purchase, as it had done with cotton, wool, and leather, and was to do with petroleum.

The rules laid down by a decision of the 11th November 1915, concerning the order of priority of delivery, were modified by the so-called preferential orders for Donetz coal, in respect of contracts that were in course of fulfillment. The consumers of the first two categories, and the municipalities (under the decision of the 24th December 1915), were given the right to receive a preferential order if they had previously made a contract for fuel. Coal might be delivered on these preferential orders only after the normal demand of the first four categories had been met. Before an enterprise that claimed a preferential order could obtain its coal, it had to present to the local commissioner a copy of the contract. The preferential orders were delivered in the order of priority of the category to which the purchaser belonged, and prior to the least privileged categories of consumers. Every consumer of the first two categories, in case of urgent need of certain kinds of fuel, might with the permission of the Commissioner make use of his right to a preferential

order, and receive part of the amount destined for the next two categories. These preferential orders were issued by the Special Council, and the mines were thereupon obliged to load the trucks destined for the specified enterprise. This measure was decided on in consequence of the fact that free contracts between the producers and consumers often hindered the timely supply of fuel to those who were most in need of it, *i.e.*, the first categories. In consequence of the decision of the 24th December, compulsory contracts were substituted for free contracts.

But even this measure did not succeed in putting an end to speculation, nor in preventing consumers of the first class from selling their coal or their preferential orders to others. The decree of the 16th February 1916, therefore, absolutely prohibited all public or private enterprises or persons from effecting any sale or concession of coal, or bill of lading, or of any part thereof, without a special permit from the local commissioner.⁷ An exception was made only in favor of retail sale to private consumers from municipal or private stores, and for coal carted away from the mines with horses. Railways belonging to private companies were also allowed to hand over their coal to other railways. But gradually, as the disorganization of transport and of all business increased and the output of Donetz coal became more and more inadequate to meet the growing demand on the part of the railways and munition factories, and as the War continued to drag on, the regular supply and distribution of hard fuel met with increasing difficulties.

Towards the end of 1916, the fuel market, like all the other markets, was seriously disorganized. The Special Council was not in a position to cope with the spread of profiteering. Its bureaucratic methods, the preponderating influence in it of mine-owners in the early period, and later on the exclusive influence of government officials, were severely criticized in different circles. The work of the local commissioners in contending with the problems before them also proved inefficient.

In the second half of 1916 a proposal was advanced to entrust the sale of all the Donetz coal to the State. The Special Council based its project on a decision of the 22nd November 1915 which had not

⁷ See Appendix I.

been put into practice. This decision gave the President of the Council the right to declare the sale of all mineral fuel a State monopoly.

As an alternative to this, another plan was proposed, which in September 1916 was adopted and ratified by the Special Council. The sale of coal was to be concentrated in one executive body which received the name of *Tsentrougol* (Coal Center). The *Tsentrougol* was nothing but a statutory syndicate of mixed composition, which included both mine-owners and government officials. This syndicate received the name of the "Central Committee for the sale of hard fuel of the Donetz Basin," or in abbreviated form *Tsentrougol*. Its organization and functions were as follows: the Central Committee consisted of a chairman and four members appointed by the Minister of Commerce and Industry, and fifteen members chosen by the mine-owners of the Donetz Basin. The right to elect the members belonged to all the Donetz mine-owners, one vote being assigned to every ten million puds of annual output. Of the fifteen members five were elected by owners of mines having an annual output of less than ten million puds each. The executive of the Committee consisted of a bureau of six members, two of whom were nominees of the Minister, the others being chosen from among the fifteen representatives of the mine-owners, or from the experts coöpted by the Committee. The chairman of the Bureau was nominated by the Minister.

The distribution of the fuel by the Committee was to be effected according to the following rules. All the Donetz coal was to be at the disposal of the Committee at fixed prices. The Committee sold it to consumers according to the instructions of the Special Council, who decided as to what kind of coal should be delivered to each consumer. All the conditions of sale, delivery, and of payment were agreed on between the Committee and the purchaser. Also all the conditions of delivery and payment between the producers and the Committee were decided between them. The mine-owners were obliged to give the Committee every information as to the quantity of fuel extracted or prepared, its kind, and its quality. They were responsible to the Central Committee for a correct statement of the quality delivered according to the order, and for the timely fulfillment of the order.

All the functions of the Special Council with regard to the State's undertaking to purchase fuel, and in respect of all payments and advances, were transferred to the *Tsentrougol*. The Committee was to form an arbitration chamber consisting of five members to con-

sider grievances and complaints, whose decision was final. If the arbitration chamber found that the mine-owners had acted illegally or dishonestly, it might have recourse to compulsion or to legal proceedings. It might fine the owners, or, if it took proceedings, the delinquent would be liable to imprisonment for a term varying from three to sixteen months, or to a fine not exceeding 5,000 rubles. All cases of sale without the knowledge of the Committee, or of false information given to it, were to be brought before the courts. The Committee was also to decide on the amount of broker's commissions; and all transactions with small consumers not mentioned in the scheme of distribution were likewise to be controlled by it.

From the day of the formation of the Central Committee, all contracts for coal were cancelled. But it must be added that the Committee immediately changed the rules by which the mine-owners had previously been governed, in some cases in their favor. It decided to allow an advance payment on government purchases up to 90 per cent of the order. On the other hand, it introduced stricter standards regarding the quality of the coal, and instituted a new and very important rule, which had a good influence on the stability of industry, by fixing prices for six months in advance.

The Committee found it advisable to introduce yet another regulation, whereby a certain percentage was deducted from the sum paid on each contract of collieries working under favorable conditions, so as to provide a fund out of which the prices might be increased in the case of less fortunate mines for which the fixed prices would entail a loss. Owing to this rule, which effected a kind of compulsory amalgamation of the mining industry, it was possible to avoid numerous variations of price according to the working conditions of the several enterprises.

We see, therefore, that State control and regulation of the coal market had made a great advance.

CHAPTER IV

THE COMMITTEES OF SUPPLY

THE problem that lay before the Special Council for the regulation and control of the so-called military industry, was comparatively simple. Even before the War, this industry had not only been to a great extent under the control of the Government, but part of it had even been actually carried on by the State. The State was the only purchaser of goods produced by this industry. Besides, the nature of the production, its uniformity, the precision of the demand, made the relations between the purchaser and the producer very simple. The concentration of the whole demand in the person of one purchaser, who was to a certain extent also the owner of this industry, and the very nature of the demand, made the control and regulation of it comparatively easy.

The metal industry in Russia, even before the War, had but a restricted home market. It subsisted chiefly on the orders of the State, and particularly on those of the railways. The remainder of its output was mainly absorbed by the industry itself. Thus between the metal industry, which was now occupied in war work, and the State, the relations had always not only been simple as between producer and customer, but had inevitably taken the form of a control by the State of prices and of production. In consequence of these conditions, the control instituted during the War over the work of the munitions industry was only partially a novelty.

But apart from the heavy industry, there were numerous other branches in which the prolongation of extensive military operations introduced new and very unfavorable conditions. Such were the textile, mining, petroleum, and leather industries. The War made the State a consumer of immense quantities of the products of certain of these industries, as for example of the textile and leather industries. In the work of others, such as the mining, petroleum, and forest industries, the State was also interested in so far as it affected conditions of transport and the industries working for the army. The State was accordingly interested in all the above-mentioned industries. But before the War these industries had been dependent

on the ordinary market, which they supplied. Conditions of life in the interior of the country would now be better or worse according as these industries were able to continue to supply it. The State was anxious to prevent too great a lowering of these conditions, and was consequently interested in maintaining the normal output of the industry in question. But the War soon created a situation that was extremely unfavorable to them.

To begin with, the State was obliged for reasons connected with the interests of the army, and later on, owing to the state of things in the interior, to bring all these industries, one after the other, under its control. As they supplied both the army and the civil population, their control presented a problem different in character from that of the control of the heavy industry. The State began by taking some very simple measures, but by the march of events it was drawn into a very complicated war-time policy, of gradually increasing scope.

As has been mentioned above, the Special Council for Defense and the Special Council for Fuel were instituted at about the same time. But before the institution of these Councils the State had been obliged to intervene with a view to easing the situation in which the textile industry found itself. The rise in the prices of the raw and semi-raw materials of this industry and the appeals of some of the manufacturers obliged the State to act. The high prices of raw and semi-raw materials placed the industry at a disadvantage. The increased cost of production and the consequently increased price of manufactured goods, made it difficult to sell them on the ordinary market, and to execute State orders. The profits of the manufacturing industry were threatened with a great reduction in favor of the producers of the raw materials. The State was interested in the regular supply of these to the mills working for the army, and was likewise desirous that their price should not exceed a certain reasonable limit conceded in view of war-time conditions.

In order to solve this problem a series of committees was instituted. A special committee was set up for each of the above-mentioned industries. Differing from the Special Councils, whose functions we have described, these committees were not so much official as unofficial institutions. They were attached to the Ministry of Commerce and Industry, and consisted partly of government officials, and partly of representatives of the several industries and

trades. These industries—textile, leather, mining, petroleum, and paper—had in pre-war times been organized into different forms of combines, some of them merely representative, others in the nature of trusts. Thus it was that the newly constituted committees found stable and experienced bodies already in existence, with which they could work on the problems that lay before them.

The *Petrograd Association of Manufacturers*, the *Moscow Association of Cotton Manufacturers*, the *Association of Cultivators of Flax*, the *Union of Tanners*, and the *Produgol*, were all combines of pre-war date. In many cases they had not only represented the interests of their trade, but had also attempted to coördinate and organize the distribution of raw materials and of the markets among the syndicated enterprises, and also to fix prices. In view of the coördination and organization of production and trade in these industries, the introduction of the new committees was rather a further development of a rudimentary pre-war system, which under the influence of war-time conditions acquired greater importance and a wider scope and was extended to other branches of economic life.

On 7th July 1915 a *Committee on the Cotton Industry*, and a *Committee on the Wool Industry*, were formed to coördinate the supply of raw materials to cotton and cloth mills. In October 1915, a *Committee on the Leather Industry* was also formed; on the 25th January 1916 a *Committee on the Flax and Jute Industries*; and on the 2nd May 1916 a *Committee on the Paper Industry*.

The duties assigned to all these committees were as follows:¹

(1) to define the maximum prices permissible for raw and semi-manufactured materials and manufactured goods;

(2) to determine the productive capacity of each of the mills, the stock in hand of raw materials and fabrics, and also the possibility of their taking up new lines of production and of adapting it to the needs of the army and navy;

(3) to determine the amount of military supply each mill was capable of producing;

(4) to determine the order or priority in which the orders for the army and navy were to be executed;

(5) to determine the prices in connection with the fulfillment of these orders;

¹ See Appendices VI, VII, XIII, XIV, XV, XVIII.

(6) to distribute raw materials among the individual mills, in accordance with the orders received for the army and navy;

(7) to compel the owners of raw and semi-manufactured materials to sell their goods to the mills working, at prices fixed under paragraph 5, for the army and navy;

(8) if necessary to purchase raw materials and to distribute these among the mills;

(9) to advise the Government on the requisition of raw and semi-manufactured materials and manufactured goods, also on the sequestration of mills in case of refusal on the part of the owners to execute an order for the army or navy, or to conform with the conditions or prices laid down, and to submit plans for working the sequestered mills;

(10) to supervise the carrying out of the regulations for the sale of raw and semi-raw materials and manufactured goods at prices not exceeding those fixed by the committee, and to superintend the execution of orders for the army and navy.

Such were the duties that the five committees had in common. In the course of time certain changes were naturally introduced in the work of each of them, as necessity arose and according to peculiar conditions created by the War in one or the other of the industries subjected to the control of the committees.

CHAPTER V

CONTROL OF THE TEXTILE AND LEATHER INDUSTRIES

1. *Control of prices.*

a. *The cotton industry.*

IN the summer of 1915 the prices for raw materials, cotton, wool, and hides had risen to such an extent that the regular and timely supply of necessities for the army was beginning to be menaced. Raw cotton in July 1914 stood at 16.70 rubles (*c.* 34s. 4d.) the pud; in January 1915 the prices had gone up to 20.75 rubles (*c.* 35s. 5d.), an increase of 24 per cent; and in June 1915 to 30.50 rubles (*c.* 53s. 5d.), an increase of 83 per cent.¹ In certain cases in Moscow the price had reached 75 rubles the pud (*c.* 131s. 3d.). Meanwhile the cotton crop in Russia, far from being below the level of previous years, was even larger than that of the preceding year. The reserves in the country were also considerable, and it might therefore have been thought that the regular supply of cotton to the mills was secure. The sudden rise of prices, and particularly their divergence in different localities, were the result, to a great extent, of speculation, which was taking advantage of the great demand from the Army Supply Department and the decrease in imports, and found support in the disorganization of transport, the consequent difficulties of supply, and the increasing isolation of markets.

The first measure, therefore, taken by the Cotton Committee was to fix the prices at which mills working for the army might purchase raw materials. This was a matter of difficulty, as many interests were involved. To begin with, a level of prices had to be determined that would prevent the cultivators from reducing the area under cotton. It was on the other hand necessary to take into consideration the part played by the price of the raw material in the cost of production of the finished article. The State could not allow an excessive price, as it was interested in keeping the expenditure on textiles for the

¹ See Appendix XX.

army within reasonable limits. The Committee worked hard to elucidate all the factors influencing the price of raw cotton, and their effect on the price of textiles. These investigations resulted in the price of raw cotton being fixed, on 26th August 1915, at 24 rubles (*c.* 34s.) the pud in the manufacturing centers, and 17.75 rubles (*c.* 25s. 3d.) at the place of production. The fixed price did not discourage the cultivation of cotton, and proved favorable to the regular supply of raw materials to the mills.²

The demand for the year 1915-1916 for one hundred mills amounted to 22.7 million puds (366,000 tons), of which according to pre-war calculations 15.8 millions (255,000 tons) would be drawn from home production, and 6.9 millions (111,000 tons) from foreign import. The Russian cotton harvest of 1915-1916 amounted to 20 million puds (320,000 tons), and, with the stocks remaining from previous years, and the imports of foreign cotton, made it possible to supply 29.2 million puds (470,000 tons) to the mills. Thanks to this, notwithstanding the great increase in production, the stock of cotton remaining at fifty-two mills, at the opening of the manufacturing season of 1916-1917, was about 400,000 puds (6,400 tons), as compared with 239,000 puds (3,800 tons) on the 1st November 1915.

Having fixed the price for raw cotton, the Committee took no further steps. It did not fix the price for yarn and finished goods. It thus made the conditions easier for the spinning-mills, but left the weaving industry, and the State as a customer for textiles, at the mercy of the market. The consequences of this omission on the part of the Committee were soon manifested.

The spinning-mills, receiving raw cotton at a fixed price, and being able to sell the yarn at their own price, reaped large profits at the expense of the cultivators and of the consumers of yarn. As the weaving-mills also could sell their product at their own price, they lost nothing by the absence of fixed prices for yarn. All the loss, therefore, fell on the consumers, of whom the State had now become the most important. The Committee was, therefore, forced to take up the question of fixing prices for cotton yarn and fabrics.

But though the mill-owners had been willing enough to assist in fixing the prices for raw cotton, they strongly opposed the applica-

² See Appendices XXIV and XXVII.

tion of a similar measure to yarn and finished goods. The representatives of the textile industry contended that the prices of yarn and of fabrics could not be fixed, unless the prices of all the elements entering into the cost of production were fixed at the same time. The whole of the rising cost of industrial activity would have to be regulated; but as this was a vast undertaking, impossible to carry out, it was likewise impracticable to fix the prices of yarn and finished goods. A meeting of the Moscow Association of Cotton Manufacturers, in particular, pointed out that it would hardly be in the interests either of the State or of the majority of the population to fix the price of textiles, and that at any rate, if a fixed price were to be introduced, it would have to be estimated at a much higher ratio to cost of production than that existing at the moment. Meanwhile the prices of yarn and textiles were rising at a threatening rate. The normal difference between raw fiber and yarn was about 8 rubles (16s. 8d.) the pud. The price of the pud of yarn, therefore, with raw cotton at 24 rubles (*c.* 34s.), ought to have been 32 rubles (45s. 4d.). But in December 1915 a pud of yarn had already gone up to 38 rubles (*c.* 53s. 10d.), and in February 1916 it went up to 56 rubles (*c.* 70s.). The difference had now reached 32 rubles (*c.* 40s.), or 133 per cent of the cost of the raw material.

A corresponding rise was observable on the market for cotton fabrics. In August 1915 the cheapest calico stood at 14 or 15 copecks (*c.* 4d.) the arshine;³ in December it had gone up to 16.5 copecks and in February 1916 to 23 copecks. It was evident that the cotton mills on the one hand, and the brokers and dealers on the other, were deriving large profits from the standardization of prices of raw cotton. An inquiry undertaken by the Cotton Committee established that the absence of controlled prices for yarn and textiles, while the price of raw cotton was fixed, was creating conditions very favorable to speculation by mill-owners and dealers.

After a long and stubborn struggle between the manufacturers and the Committee, the latter decided, but much too late, to fix the price of yarn and textiles. This was effected by an ordinance of the Minister of Commerce and Industry dated the 2nd April 1916. By this time the prices of yarn and fabrics had risen to such an extent that a high maximum had to be adopted. The price of yarn was fixed

³ One arshine=2.3 feet=0.7 yard.

at 37-43 rubles (46s. 3d. to 53s. 9d.) the pud and the cheapest calico at 18 copecks the arshine, for a period of seven months; *i.e.*, up to 1st November 1916.

Paragraph IV of the ordinance of 2nd April, fixing the prices of yarn, and Paragraph I fixing those of fabrics, only referred to dealings with the State for the army and navy supplies, with the Russian Red Cross, the All-Russian Unions of Towns and Zemstvos, and other governmental and public bodies. Thus the fixed prices were enforced exclusively as regards mills engaged on war work.

The ordinance of 2nd April affected the market in cotton fabrics in various ways. The ordinance had no reference to the ordinary market, and the fixed prices, moreover, were limited to certain fabrics. The application of fixed prices to certain specified fabrics did not stop the rise in the price of other fabrics. The manufacture of goods of which the price was fixed threatened to decrease in favor of those whose price remained uncontrolled. The great rise in the price of the latter obliged the Committee in May of the same year to fix the price of all cotton goods, but only when manufactured for the army.

Another result of the fixing of the price of cotton fabrics for the army was that, instead of preventing, it conduced to the rise of prices in the open market. The Moscow section of the War Industries Committee, in a special memorandum on the subject, pointed out that "the mill-owners compensated themselves for selling their yarn to the Army Supply Department at a lower price by selling their produce at a higher rate in the open market." The Committee proposed, therefore, to adopt a higher fixed rate, which should, however, be obligatory in the open market, as well as for orders of the Army Supply Department.

By an ordinance of the Minister of Commerce and Industry, dated the 8th July 1916, the price of yarn was fixed for all transactions subsequent to the issue of this ordinance up to the 1st November 1916. The new prices were fixed at 41.50 to 48 rubles (*c.* 52s. to 60s.) the pud. This ordinance also canceled all contracts for cotton yarn concluded in the ordinary market between the 10th April 1916 and the date of its issue at prices higher or lower than those now fixed, if the date of delivery were after the 1st July and before the 1st November 1916.

An inquiry conducted by the Committee on the subject of the price of cotton fabrics showed an average rise of 119 per cent on pre-war prices, and in some cases of 160 per cent. In view of this, the Committee in September fixed maximum prices for the goods commonest on the market, and this maximum was higher than that previously fixed for State orders.

The prices of raw cotton, yarn, and textiles, as of all other commodities, could not be fixed for an indefinite period. As stated above, they were fixed up to the 1st November 1916, at which date the results of the new harvest would be known. The continual fall in the value of the ruble, the increased scarcity of a whole series of necessary raw materials, the general rise in the cost of living, particularly in the price of foodstuffs, became especially acute during the autumn of 1916. All these causes combined to raise still further the price of cotton and cotton goods. Price control was certainly, in some cases, one of the causes of the disorganization of the market. As the prices were fixed for a certain definite period, after which they would have to be revised owing to the general rise of prices, all the cotton goods disappeared from the market as the date of the revision approached. A few occasional lots of goods would fetch a very high price. This withdrawal of goods from the market and the high prices of such as were offered enabled the representatives of the cotton manufacturers to put pressure on the State authorities to fix a much higher maximum for the ensuing period.

But the disappearance of cotton goods from the market was due not only to speculation by the producers in the hope of selling them at a price that was inevitably to become higher. It was the result of other causes also. For instance, prices were fixed only for the textiles most in demand on the market. To fix prices of all tissues presented technical difficulties, and would not always have been expedient, as the fabrics not subjected to control were of the better qualities and rather in the nature of luxuries. This was why cotton velvets and velveteens were excluded from control; and in the autumn of 1916 the cotton mills were producing precisely these fabrics, and in some cases gave up completely the manufacture of cheap prints. Moreover, the decrease in production of linen fabrics led to so great a demand for cotton fabrics in their place that the supply of these could not meet the demand, and they became scarce. The irregular

character assumed by textile production, owing to the periodical changes in prices, induced dealers to store a considerable portion of their goods, in view of a possible shortage.

Notwithstanding the restrictions imposed on sales on the ordinary market, high prices and the large demand made clandestine trade with private purchasers so advantageous and attractive that it continued, and sellers, by way of insurance against the risk of sequestration or requisition, raised their prices still higher. The great extent of the Russian Empire increased the difficulty of fixing prices. The fixed price was observed chiefly in the capitals, but in the provinces it was much easier to evade the rules and it was natural that the goods should slip away from the big centers into the provinces, where they were either sold at high prices, or were kept in reserve until better times.

A great struggle took place when the time for the revision of prices was drawing near. The price of yarn up to November, as we have seen, was 24 rubles (*c.* 34s.) the pud, but in November this price no longer corresponded to the conditions of business. The representatives of the Ferghana province (the chief center of cotton cultivation) were asking that a price of 34 rubles should be fixed. The Governor General of Turkestan thought the price ought to be 37.50 rubles. The Moscow Cotton Committee adopted 31 rubles. The Minister of Commerce and Industry decided on 30 rubles (37s. 6d.). This figure was quite inadequate, and the moment it was declared all deals for cotton in Turkestan were immediately stopped.

Moreover, the prices fixed by the Government were for ginned, not for unginned, cotton. Therefore, unginned cotton was bought at free prices, which consequently continued to rise, particularly in the autumn of 1916 under the influence of an indifferent harvest. Finally the price was fixed at 36 rubles (*c.* 45s.), but by that time the price of unginned cotton had gone up to 39 rubles (*c.* 48s. 9d.).

A corresponding price had to be fixed for yarn and cotton tissues. The price of prints was raised to 26 copecks (4d.) the arshine,⁴ but the question of the price of yarn again provoked a struggle. The Cotton Committee wanted the price fixed at 60.20 rubles (*c.* 75s. 3d.) the pud, or nearly 50 per cent higher than the price of the previous year. The Minister would not consent to this. The Committee

⁴ See p. 26, n. 2.

instituted an inquiry, which showed the following percentage increase in cost of production as compared with pre-war prices.

	<i>Percentage</i>
Wages	89
Fuel	230
Dyestuffs	1,031
Other materials	194
Commercial expenses	122

Finally the price per pud was fixed at 57.20 rubles (*c.* 71s. 3d.). This absence of a definite government policy in regard to price control led to a further disorganization of the market, and towards the end of 1916 the conditions of the cotton industry had become critical, and far more thoroughgoing measures became imperative.

b. The wool industry.

The Wool Committee, which was instituted at the same time as the Cotton Committee, was also faced with the problem of fixing prices, as the increased cost of woolen goods was beginning to embarrass the Army Supply Department.

The clip of 1915 was not inferior to that of the preceding year, and the mills were fully guaranteed against shortage of raw material. Owing to the prohibition of export, all the wool that formerly was exported would now remain in the country. Nevertheless the general speculative tendencies of the moment affected also the woolen market, and drove prices up. Thus in Rostov, in the spring of 1914, the price of scoured wool stood at 46 rubles the pud (*c.* 95s. 10d.); in the autumn of the same year it rose to 52 rubles (*c.* 99s. 8d.); in the spring of 1915 to 75 rubles (*c.* 131s. 3d.); and in autumn to 100 rubles (*c.* 141s. 8d.).

On the 14th September 1915 the Committee fixed the maximum price for fine wool from 45 rubles (*c.* 62s. 11d.) to 70 rubles (*c.* 122s. 6d.) and on 22nd November that that for coarse wool at 80 rubles the pud (*c.* 113s. 4d.). Moreover, it was necessary to fix without delay the price for the scouring, an important factor in the price of wool.

But the prices fixed were rarely observed at the center of production—the trans-Volga districts and central Asia. They were raised by the manufacturers themselves who feared a shortage of material

and competed one against the other, sure of compensating their outlay with a good profit, as long as the prices of woolen tissues remained free.

On the part of the sheep-farmers the fixed prices were only observed by the smaller men, who were under the necessity of selling their wool as quickly as possible. The big farmers were able to hold on in the hope of further profits. It very soon became evident that fixed prices for raw wool alone were not enough, and that the Army Supply Department could not be guaranteed favorable conditions unless prices for woolen fabrics were also regulated. The Wool Committee was, therefore, forced to fix prices for cloths, which as time went on were frequently revised.

The revision of the prices, however, of raw wool and woolens respectively was not carried out simultaneously. The price of cloth was raised before that of wool. This created temporarily favorable conditions for the cloth manufacturers, and considerably increased their profits. Moreover, as the regulation price of wool remained at a level adapted to the previous price of cloth, the manufacturers could afford to give more for raw wool, and this led to an immoderate rise in the price of the latter.

The problem of fixing prices for wool differed from that of fixing prices for cotton. The cotton industry was not only able, but obliged, to work for the ordinary market, as the Army Supply Department purchased only a part of the output. But for goods such as blankets and coats the government demand was so great that the cloth industry could spare but a limited quantity of its goods to the market. In the end the cloth mills concentrated all their activity on work for the army. As the industry came to have business relations exclusively with the Army Supply Department, or in other words with the State, as its only customer, the question of the price of cloth ceased to concern the ordinary market; the matter was dealt with only in view of the interests of the State as a consumer.

Another peculiarity of this branch of control was that the prices were fixed in conformity with those ruling on the world market, and with the fluctuations of the value of the ruble. These conditions undoubtedly gave the industry an additional margin of profit, for the value of the ruble at home was higher than abroad. On the other hand, this policy, adopted under the pressure of interested parties,

contributed to restrict the rise of prices, and favored the importation of foreign wool.

The price of all kinds of raw, unscoured wool was not, however, controlled. Some of these remained freely marketable up to 15th July 1916. But with a view to preventing speculation in these kinds of wool, the owners had the right, if they could come to an agreement with the purchaser, to send their wool and have it scoured at the washhouses controlled by the Government, at fixed maximum prices.

For the grading of wool, the fixing of fees for the scouring of wool and prices of scoured wool, and the settlement of any dispute relating thereto, an arbitration board was attached to the Wool Committee, consisting of the Chief Inspector of the Moscow district as chairman, two representatives of the wool trade chosen by the Trade Exchange Committee, two mill-owners chosen by the Association of Cloth Manufacturers, and four sheep-farmers. The arbitration board also determined the commission payable to brokers and firms acting for the mills employed by the State.

Lastly, the difference of price as between scoured and unscoured wool might be brought to arbitration. Where necessary, a test scouring might be carried out under the supervision of an official of the Army Supply Department. If there had been overpayment for scoured wool, the liability of the purchaser would not exceed 50 per cent of any excess in the cost of the scoured wool over the fixed price.⁵

The Government thus extended its control over the cloth and wool industry further than over the cotton industry.

e. *The leather industry.*

The general disorganization of industrial conditions made its influence felt in the leather industry, as it did in the cotton and wool industries, in the autumn of 1915. In October the price of sole leather went up from 58 rubles (*c.* 82s. 2d.) to 120 rubles (*c.* 170s.) the pud, and the price of boot leather from 45 rubles (*c.* 62s. 11d.) to 70 rubles (*c.* 100s.) the pud.

The leather industry had no organization. The great demand for leather consequent on the orders for the army called forth a crowd of middlemen, through whose hands the commodity had to pass before reaching the factories or workshops. This created conditions

⁵ See Appendices VIII, IX, X.

favorable to speculation, and prices rose rapidly month by month. The first step taken by the Leather Committee in view of this situation was to control prices. The Committee began its work on November 9th and on the 11th it issued its first ordinance relative to prices. It began by fixing the price of tanned hides. But it immediately became evident that to regulate the price of tanned hides was useless and only embarrassed the tanneries, unless the prices of raw hides and skins were fixed also. Regulations for this purpose were consequently issued on 29th November. Contrary to the practice adopted in the industries previously referred to, the prices of hides and of leather were fixed simultaneously, both for the general market and for government orders.

Price control could not be confined to hides and leather. The greater part of the orders for the army was for boots and other leather accouterments. Having fixed the prices for leather the Committee was faced with the excessive rise of prices of finished leather articles. By an ordinance of 1st March 1916 maximum prices were fixed for boots, but this related only to boots made for the army, the price of boots for the market remaining free. The control of the price of boots led to the control of the price of all kinds of leather used in making boots. The great demand for winter coats made it necessary to regulate also the price of sheepskins. The price was fixed in the first instance up to the 1st February 1916, then revised up to the 1st April, and again to October.

The prices of different goods were not fixed simultaneously, but as necessity arose. It was not until the resolution dated 6th October 1916 that the price of raw hides, tanned leather, and all finished leather articles was laid down. This lack of system in fixing prices involved the industry in a series of difficulties, for it could not always adapt itself to the inconsistencies in the prices of hides, leather, and finished goods. Moreover, when prices were fixed for some one article necessary for the army, it affected the prices of other articles on the market, of those, that is to say, required by that part of the industry which was not engaged on war work. Driving belts for machinery were an instance of this. The price of these belts was not fixed until the 6th October 1916, but as the price of the material necessary for their manufacture was fixed, the production of the belts ceased. They disappeared from the market, leaving the factories which needed them in great difficulties.

The control of price of leather goods did not eliminate the possibility of speculation in this industry any more than it did in the industry previously discussed. Although the fixed prices had existed a whole year, conditions on the Moscow market in November 1916 were extremely unfavorable for business. "Goods have disappeared from the market," wrote the official gazette of the Ministry of Commerce and Industry, "speculation is undoubtedly going on. Simultaneously with the disappearance of the goods, their prices are rising rapidly, and purchasers from the provinces are completely thrown out of their reckoning, and never know where they are. Tanners are very cautious in the sale of their goods, either keeping them back and storing them, or else sending them to other towns. These firms are waiting till the beginning of next year, when the demand for soft leather will inevitably increase. They not only refuse to sell to provincial houses, but are rather inclined to buy up all the stocks, and it sometimes happens that they buy back their own goods at a higher price than they had received for them." Thus the price control failed to produce the desired result in the leather industry as in the other industries. Consequently here also more radical measures were necessary, and these finally took the form of a State monopoly.

d. *The flax industry.*

On 25th January 1916, much later than the preceding committees, a Committee for the Regulation of the Flax and Jute Industries was formed, consisting of two sections, one for each of these branches of industry.

Embarrassment on the flax market became apparent only towards the end of 1915. The harvest of 1913-1914 had been very good, yielding 31 million puds (500,000 tons). In pre-war times the home consumption amounted to only 30 per cent of the output, and 70 per cent was exported. With the outbreak of the War export ceased. It was feared that this would cause a sharp fall in prices, and cultivators awaited the next season with some apprehension. But the harvest of 1914-1915 was bad, the yield fell to 17 or 18 million puds (274,000 to 290,000 tons), and this kept prices from falling. But as the home consumption in ordinary times came to about 11 million puds (177,000 tons), even the greatly increased demand for the army could be easily met by the supplies on the market. Therefore no sharp rise was expected. Nevertheless speculation made its influ-

ence felt on the flax market also. Holders of flax kept back their supplies in the hope that the general disorganization of business, caused by the War, would lead to the rise of the price of flax, as of other commodities.

Prices began to rise as soon as the result of the harvest of 1914-1915 became known. The exporters bought up the crop and stored it, expecting more favorable conditions for export. A host of commercial speculators also began buying and storing linen goods, in anticipation of an inevitable rise of prices, both at home and on the world market. The mills, however, were able to buy a part of the raw materials required by them. In the spring of 1915 they had secured about 75 per cent of their demand; but the remaining 25 per cent was very difficult to obtain, as the offer was limited.

Meanwhile the demand for flax on the home market was growing rapidly. Owing to the large orders for the army, and also to the deficiency of cotton fabrics, the demand for linen and jute goods was increasing. The majority of linen-weaving mills in 1915 were working twenty hours a day, in two shifts. The spinning-mills worked ten and ten and a half hours in one shift. In some mills a three-shift system was introduced. The intensity of the work done by the mills may be judged by the fact that the production of yarn rose 50 per cent. From an annual production of 8.4 puds (302.4 lbs.) per spindle it went up to 12.6 puds (453.6 lbs.). By the autumn of 1915 prices had risen more than 100 per cent. Flax that fetched 5-6 rubles (*c.* 7s. 11d. to 9s. 6d.) a pud at the beginning of the War now fetched 12 rubles (17s.) or 13 rubles (18s. 7d.).

The proposed export, which was to begin after the harvest had been gathered in, threatened to raise prices still higher on the home market. In the hope of checking this, the Government limited the amount to be exported between 1st September 1915 and 31st January 1916 to 2 million puds (32,000 tons); but this measure did not have the desired effect and prices continued to rise. They rose more rapidly than ever during the winter of 1915, as soon as purchases began. The price of a *berkovets*⁶ of flax in Kostroma attained in December 1915 160 rubles (226s. 8d.) as compared with 75 rubles (156s. 3d.) in December 1914. In Ostrov it was 105 rubles (140s. 5d.) as compared with 51 rubles (106s. 3d.). Flaxen yarn in Mos-

⁶ One *berkovets*=10 puds or 360 English pounds.

cow rose from 13 rubles (27s. 1d.) the pud to 34 rubles (47s. 8d.), and from 14 rubles (29s. 2d.) to 52 rubles (73s. 8d.) the pud.

During the first months of 1916 the rise was especially rapid, for it was generally expected that the new Committee would proceed to fix the prices, and the trade endeavored to send them up as high as possible. The prices were indeed fixed, but only from the 1st April up to the 1st November. The question whether prices ought to be fixed only for army orders, or for all yarn on the market, led to a conflict in the Flax Committee. The owners of spinning-mills proposed to regulate the price only of yarn employed for the orders of the Army Supply Department. They were even willing to reduce the price to the State if it did not take more than 60 per cent of total production, intending to make good the loss out of the remaining 40 per cent sold on the open market. If, on the other hand, the Army Supply Department were to absorb the whole output, prices would have to be fixed at a much higher rate than had hitherto prevailed. In the end they were fixed only for the yarn and a little later for the fabrics needed for the army.

In the autumn of 1916, just before the expected revision, a great increase of prices took place on the market. From 12-14 rubles for a pud of flax the price went up in November 1916 to 30 rubles (38s. 4d.). Taking into consideration the further rises that would inevitably occur, the manufacturers insisted on the prices being fixed for a shorter period and revised more frequently. There was keen controversy as to the price of fabrics. The result was that the old price of yarn was maintained until January 1917, until the price of flax on the market could be ascertained. As regards the price of fabrics, the Army Supply Department left 10 per cent of the total output at the disposal of the manufacturers and gave its assent to an increase of only 10 per cent in the fixed price.

The complicated situation of the flax market was partly due to the fact that Russian spinning-mills produced numerous qualities of yarn, classified by numbers from 2 to 60, whereas the regulation of prices touched on only those numbered from 4 to 22. Naturally the qualities whose price was not controlled began to be produced in greater quantities, at the expense of those whose price was fixed.

The Flax Committee made the same mistakes of policy as the other committees. The regulation of prices was begun too late. The frequent revisions resulted only in a periodical rise, and gave the

industry and the market a sense of instability. The failure to control the raw material and the restriction of fixed prices to goods manufactured for the army rendered the whole process of control difficult and ineffectual.

e. The paper industry.

On 2nd May 1916 a Committee for the Regulation of the Paper Industry was formed. Paper had no immediate bearing on the needs of defense. It concerned exclusively the interior, where the publishing and printing business was very active. As the chief centers of production of raw material for the paper mills were the Baltic provinces and Finland, and a considerable quantity of the material was imported from abroad, the supply of the mills became more difficult with the development of military operations. The demand for paper grew and the publishers and printing presses were greatly embarrassed.

A committee was formed at the instance of the manufacturers, which was charged with the same functions in respect of the paper industry as the other committees in respect to their several industries. It was authorized to fix prices for raw materials and for manufactured goods. But in the course of 1916 its activity was limited to investigating the conditions of the paper market, prices, output, and stocks. The committee was on the point of taking steps for the regulation of prices, when the Revolution of 1917 broke out and completely altered the character of this committee and of all the others engaged in carrying out the government control of industry.

2. Distribution of raw materials and centralization of supplies.

One of the problems entrusted to the Committees of Supply, from the beginning of their existence, was that of furnishing raw materials to the factories engaged on defense work.

The deficiency of raw materials was of two kinds. In certain cases it was only relative, the supplies on the market not being equal to the increased demand, created by the needs of the front. In other cases it was absolute, and was the result of the decrease of imports (cotton, hides, and coal), or of a decrease in home production (wool, hides), or of both causes together.

To allow the pre-war conditions of unrestricted trade to continue would have involved favoring certain undertakings at the expense of

the rest. This inequality would have affected both individual firms and whole districts. As regards the former, the new conditions would have accentuated the difference existing before the War between individual firms in respect of financial and economic power and position on the market. As regards the latter, the inequality would have arisen from the disorganization of transport and communications between the several markets and industrial centers. The inequality in the distribution of raw materials would inevitably have given rise to a number of difficulties both for the State and the public.

The mills and factories engaged on war work, having increased their output and being inundated with orders for the army, applied all their energy to procuring supplies of raw materials on the market. But the possession of these did not always mean that a factory would be able to cope with all the orders that it had received, as this depended also on its technical equipment and general productive capacity. Having regard to the character of military operations, the State was interested chiefly in having its orders speedily executed. It was to its interest that all enterprises should work simultaneously, so that the supplies required for the army should be forthcoming as quickly as possible. In this respect the interests of the State and the manufacturers were directly opposed.

If the market had been left to the free play of competition, by which only certain enterprises could have profited, the interests of defense and of the nation as a whole would have suffered. Moreover, if individual factories had been allowed to procure raw materials to the detriment of others, at a time when all industrial activity was concentrated on producing supplies for the army, it would have inevitably meant a decrease of output in the less favored factories, which would have been reduced to distress, and a number of hands would have been thrown out of work.

Lastly, during the second year of the War, it became evident that notwithstanding the extreme need of production for the army, it was also necessary to leave part of the industrial output to meet the requirements of the civil population. As the factories working for the army had been given a privileged position as regards the supply of raw materials and facilities of transport, the factories working for the open market on the basis of free competition might find themselves unable to obtain the necessary amount of raw materials. On the other hand, the manufacturers of goods intended for the open

market the prices of which were not fixed were in a position to pay anything for raw materials, and could, therefore, obtain these to the detriment of manufacturers working for the army. The problem, therefore, of supplying raw materials to the latter was one of paramount importance to the State. It could not be resolved unless prices were fixed; but this would be effective only if the distribution of raw materials among the manufacturers was also regulated by the State.

In addition to controlling the distribution of raw materials and fuel, the State found itself obliged to regulate their transport. The State intervened, therefore, on the one hand in the distribution and conveyance of raw materials and fuel to their several destinations, and on the other, in their equitable apportionment to each individual enterprise. But neither the regulation of prices nor the regulation of transport was sufficient to ensure the adequate supply of raw materials and fuel to the factories. In the second year of the War, the disorganization of the market had become too serious for these measures alone to have any effective results. To obviate, in a certain measure, the consequences of the economic perturbation then prevailing, the State was obliged to go to the root of things: it had to undertake the distribution of raw materials at the fountain head—on the market itself, to control dealings, not only from the point of view of prices, but also from the point of view of distribution among the purchasers. This restriction of the freedom of the market ultimately led the State to the concentration of all trade in its own hands.

We shall now follow the evolution of State control in the various branches of commerce and industry. It will be easier to do this, if we take each branch of industry separately, as various measures of State control were adopted simultaneously, and were complementary to one another.

a. Distribution of cotton.

If the distribution of raw cotton to the individual mills was to be equitable, it had to be made with due regard to the productive capacity of each (as shown both before and during the War), to its stock of material, and to its actual need. To ascertain these factors, the Committee had to investigate in detail the state of affairs in every mill. Thus for the first time the control of the State extended to matters which had always been considered as commercial secrets.

In the course of 1915-1916 the Committee carried out five distributions of Russian cotton. The results of the harvest, reckoned at 18 million puds (290,000 tons), were taken as the basis of the first distribution. Of this quantity 14 million puds (225,000 tons) were allotted in the beginning of September, according to the number of spindles in use in each mill, at the rate of 1.73 puds (62.2 pounds) to the spindle. The aggregate number of spindles in the mills of the Moscow and Petrograd industrial districts was 8,103,817. The annual average amount of cotton used to one spindle, working 18 hours a day, varied from 1.5 to 6 puds (54 to 216 pounds).

The first distribution proved very unequal. Some of the mills received the whole of their annual demand, others about 70 per cent, but most of them did not get more than 40 per cent. The second distribution gave better results. Only 2,380,000 puds (38,000 tons) were allotted, but in such a way as to supply all the mills with not less than 65 per cent of the annual demand.

The third distribution included not only the mills employed by the State, but all the mills working for the army. On this occasion 2,254,000 puds (36,000 tons) were distributed. Some of the firms were already so fully supplied that they refused their share in this and the following distributions; other firms refused the part allotted to them in the second distribution; while those which had refused to give any information respecting the stock of cotton in their possession were excluded from the distribution. The total number of firms taking part in the distribution was eighty-two. But of these, thirteen had already a stock amounting to 90 per cent of their requirement. The necessary quantity for the remaining sixty-nine was fixed at a maximum of 4 puds (144 pounds) per spindle annually. Two million puds (32,000 tons) only were distributed, and each firm was supplied in the proportion of 88 per cent of its demand. At the same time a period was fixed during which the firms might claim their right of purchase in respect of the cotton harvest of 1916. At the expiration of the period, their right was considered to be forfeited. Finally, in August 1916, a fifth distribution of 2 million puds was effected, and all the firms supplied with 96 per cent of their annual demand. It must be borne in mind that these distributions became possible only because the total demand decreased and this in spite of the great increase in the requirements of the army.

The work of distribution of raw cotton was not limited to de-

termining the quantity necessary for each mill. Difficulties of railway transport very often rendered the distribution merely nominal. The Committee was, therefore, forced to take measures to regulate the carriage of the goods. This was partly attained by a general supervision of their transport. An order issued 8th October 1915 enacted that all cotton should be consigned in the first instance to the Committee, and only subsequently directed to their actual destination, in accordance with the endorsements made on the bills of lading.

As the distribution of raw materials to each firm was made according to the number of orders given to these firms by the Army Supply Department, it was necessary to concentrate the distribution of both orders and material in the same hands. This was effected by an agreement between the Cotton Committee and the Cotton Section of the Moscow War Industries Committee. The Army Supply Department delegated to the Committee the duty of receiving, storing, and sorting, as well as of valuing and paying for all consignments of raw cotton for the Department, and also of distributing it.

All the above measures related to Russian-grown cotton only. But from the second year of the War considerable quantities of foreign cotton began to be imported. For the equitable distribution of imported cotton it was not only necessary to determine the amount of it to which each firm was entitled, but also to provide the firm with the means of paying for it. As the import and export of foreign exchange was for the period of the War regulated by the general financial policy of the State, the Committee, besides distributing the cotton, was obliged to distribute, subject to the approval of the Minister of Finance, the necessary amount of foreign exchange. All applications of mill-owners for permission to purchase foreign exchange were examined by the Committee. If the necessary sum could not be had on the money market, it was supplied by the Minister of Finance.

At first, as has been pointed out, State control hardly extended to the market at large; except for fixing prices it did not concern itself with the civil population. The regulation of prices was extended as we have seen to the textiles for the use of the public. But manufacturers working for the open market did not keep strictly within the limits prescribed by the Government. Firms working for the State

could not evade these, and consequently production for the open market was more profitable and had a tendency to grow.

In the distribution of raw materials and regulation of transport the Committee had aimed at assisting the mills that were working for the army. That these materials obtained on specially favorable conditions should go to the production of goods for the general market was clearly detrimental to production for the army. The mobilization of industry, the watchword that was so popular in 1915, had been a spontaneous unofficial movement. It could not defeat the effects of private cupidity in every case. Nor could a declaration by the Government of compulsory mobilization be sufficient in itself to attain this end. The concentration of manufacture exclusively for the needs of defense could be effected only by the total suppression of private demand. All private dealings would have to be suspended and all those middlemen who had become so numerous owing to war conditions would have to be eliminated.

The root of the evil lay in the fact that the raw materials and the foreign exchange distributed by the Committee often fell into the hands of persons and firms who were not real producers. Such persons often only pretended to open small mills or workshops, with the object of obtaining the right of receiving raw materials, which they themselves did not use, but resold to others. Sometimes these persons were really mill-owners who, rather than work their own mills, found it more profitable to sell the materials they had received for those mills to other firms working for the open market, which had no right to have raw material or foreign exchange allotted to them at the advantageous rate allowed by the Committee. Such firms found it extremely difficult to obtain either raw materials or foreign exchange. They had to have recourse to subterfuge, and to use as intermediaries persons or firms who assumed fictitious characters.

The Committee found this evil, which had become prevalent, very troublesome to deal with. With a view to restricting the illicit traffic, the Minister of Commerce and Industry issued on the 29th and 31st July 1916 two ordinances. These prohibited any wholesale private transactions in cotton yarn, unbleached fabrics, or any kind of finished cotton fabric. The exceptions allowed by the ordinance clearly show the object in view in the struggle with speculation.⁷ The wholesale private deals in unbleached cotton fabrics were permitted:

⁷ See Appendix XI.

(1) to persons or firms who finished these fabrics in their own factories;

(2) to persons or firms who finished these fabrics in factories not belonging to them, if they did the work themselves and in the same place as before the 1st August 1914;

(3) to persons who used the fabrics for technical purposes;

(4) to persons engaged in the retail trade of these articles in permanent premises, if these persons or firms had been so engaged before 1st August 1914.

Wholesale deals in finished fabrics were permitted where the purchasers were:

(1) persons or firms dealing independently in these goods on their own permanent premises, if they had been established before 1st August 1914;

(2) coöperative societies and public stores, or factory shops.

The sale of yarn also was forbidden to persons not using it in their own mills.

The practical application of these rules met with many difficulties. The reverses of the War had obliged a number of old and respectable firms, which had for years been engaged in the textile trade in the regions now occupied by the enemy, to leave their place of business. There were, moreover, instances of firms started after 1st August 1914, without any obvious profiteering intentions.

On the other hand a convenient way of evading the regulations was to present certificates of transactions in goods purporting to have been concluded before the rules were issued. Deals for large quantities of these goods, and extending over long periods, were of frequent occurrence, mill-owners being afraid of a shortage of materials when these were required. These goods were often the object of speculation.

In September 1916, therefore, a supplementary ordinance was issued to the following effect:

(1) the Committee was empowered in particular cases to grant permits for wholesale deals to firms founded after 1st August 1914, if it had good reasons to believe that no speculation was intended;

(2) all deals concluded before the issue of the ordinance by persons or firms to whom the sale of these goods had been forbidden were canceled.

From this moment the textile trade in general was subjected to a more rigorous government control.

The Committee was further empowered to distribute to dealers in textiles for sale to the public, at fixed prices, any surplus of goods that might remain after the needs of the army had been satisfied.

Finally certain regulations were prescribed for the wholesale and retail trade on the open market. The Minister of Commerce and Industry was authorized to prohibit banks from advancing loans on textiles or bills of lading of these goods. All loans infringing the rules with regard to prices on the market were declared null. Any person guilty of contravening these rules was liable to imprisonment for a term of from two to sixteen months.

For the more effective control of the market, the Committee had also established a far-reaching system of supervision over the cotton industry. This control aimed at determining:

- (1) the amount of yarn produced by the spinning-mills;
- (2) the number of contracts for textiles concluded, or proposed, for the Army Supply Department, for the Zemstvos and Town Unions, and for any department in any way working for national defense;
- (3) whether the orders for the Army Supply Department and others were carried out with yarn of the mill's own spinning, and what amount if any had been purchased, and where;
- (4) to whom, in what quantity, and at what price, yarn had been sold by the mills for the execution of government orders.

But all these measures, price control, the distribution of raw materials, and the regulation of private trade, were not very effective so long as the source of the whole trade—the sale of raw cotton—remained uncontrolled.

In September 1916, the Cotton Committee took up the question of the sale of raw cotton. An inquiry into the conditions of this part of the cotton trade showed that the powers of the Committee were inadequate. Profiteering had not ceased in the autumn of 1916. It became evident that the maximum prices fixed for raw cotton would not be observed. A number of facts proved that the circumvention of the rules prescribed had become, by the mutual consent of the parties, of common occurrence, and that the Committee was powerless to remedy this situation. The representatives of the industry

were of opinion that, in the circumstances, it was imperative that transactions in raw cotton should be placed under the direct control of the Committee. They expressed the view that the first measure to be taken was to prohibit firms with representatives in the manufacturing districts from buying any cotton on commission, or for their own account. This measure was considered expedient, because, as the prices for unginned cotton had at that time not yet been fixed, it was very easy at the plantations to evade the price fixed for ginned cotton by concluding local bargains at fictitiously high prices established by mutual consent. It was also considered advisable to forbid loans on cotton that had not been sold to the mills. This measure obliged the holders of cotton to sell as quickly as possible.

As for the requisition of cotton it was recognized to be impracticable. When cotton was requisitioned and paid for at the fixed price, the traders were saved from the risk they ran in withholding correct information as to the actual amount of their stock. The representatives of the industry in the Committee thought that in cases of requisition the prices paid should be not less than 15 per cent below the fixed price.

In the autumn of 1916, speculation in cotton in the cotton-growing districts produced an atmosphere of anxiety with regard to the prices of raw cotton. It became apparent that the fear that the maximum prices would not be observed in the manufacturing centers was one of the chief reasons for the rise of prices, and that if direct uncontrolled dealings between holders and purchasers were forbidden, speculation would become impossible.

Thus the need of concentrating all transactions in the hands of some one organization had become evident. This was realized by the cotton manufacturers themselves, who formed a special body for this purpose named *Tsentrokhlopok* (Cotton Center).⁸ The following rules were laid down for the direction of the *Tsentrokhlopok* in the exercise of its functions:

(1) all agreements for the sale, purchase, and conveyance of cotton were to be registered;

(2) all consignments of cotton not removed by the consignee within a certain time were to be requisitioned, that they might not become the object of profiteering;

⁸ See Appendix XII.

(3) all cotton bought after the first distribution by the Committee, if it exceeded 25 per cent of the annual requirements of the purchaser, was to be submitted for registration ;

(4) no deals were to be concluded in the name of any individual person, and all the cotton purchased after being sorted into lots of sufficient size were to be distributed to the mills, according to the declaration of each as to the amount, kind, and quality needed ;

(5) the Committee was to determine in what currency payments should be made and when ;

(6) deals in cotton were to be expressed in contracts approved by the Committee.

After a sharp struggle between the interests of the cotton merchants, mill-owners, and consumers, the Minister of Commerce and Industry, on the 2nd December 1916 issued an ordinance on "The centralization of deals in cotton," which established a system of a rigorous control over the cotton trade, and thus over the supply of mills with cotton and yarn, and of the market with textiles. This ordinance introduced the following order of procedure.⁹

(I) All persons or firms engaged in the cotton trade or as cotton brokers, and owners (or directors or managers) of cotton mills, purchasing either ginned or unginned cotton were obliged: (a) to inform the Cotton Committee of the amount of cotton of the harvest of 1916 in their possession ; (b) to sell this stock exclusively to persons or firms indicated by the Committee, and at the price fixed on 20th November 1916.

(II) No transaction in ginned cotton that had been brought into the manufacturing regions, and no contract for the dispatch or delivery of ginned cotton from the plantations to the manufacturing centers, might be concluded without the permission, in each individual case, of the Committee.

The ordinance of the 2nd December 1916 further prescribed very strict regulations, not only as regards prices, but also as regards the rate of exchange for foreign currency, advance payments, commissions for transport charges, and other expenses.

This ordinance completed the system of State control over the cotton industry, and remained in force up to 1917, that is to say, until the Revolution.

⁹ See Appendix XII.

b. The wool industry.

The wool industry was subjected to an even greater degree of State control than the cotton industry. The Wool Committee began by taking steps to register the available amount of raw wool, and have it under its own control. It did this at the outset only for the fine wools (merinos), as it was in regard to these that fears of scarcity were first entertained. By a resolution passed on the 14th September 1915 the Committee required all dealers in fine wool and owners of washhouses to declare the amount of their stock of unsold wool, and if a sale had been concluded for part of it before the issue of the new regulations, to inform the Committee when, and to whom it had been sold, and the place of its destination. The same obligation was imposed on the owners of spinning-mills. All dealers in wool were obliged to sell their whole unsold stock to the Committee, which would distribute it to the factories working for the army and navy. In case of shortage, the Committee might even distribute the fine wool for which contracts had already been made, in which case the purchasers were obliged to surrender it to the Committee.¹⁰

But the registration of the stock of wool in the possession of dealers and manufacturers could not provide exhaustive information as to all the existing reserves of wool that had not been distributed or applied to meet the needs of the army. Therefore, in April 1916, a new ordinance was published, obliging all private persons, societies, banks engaged in the trade, exporters, and others possessing supplies of wool to declare the quantity they had in hand. Even this measure, however, did not attain the desired object. Profiteering went on as before, and registration was evaded by selling the wool to the mills working mainly for the market.

The authorities then established a control at the other end: instead of controlling the sellers, they began to control the buyers. At first the right of purchase was limited only as regards fine, unwashed wool. Only manufacturers of regulation cloths for the army were allowed to buy this kind of wool, and only on obtaining a written permit from the Committee. The permit was valid only for a specified period, from January to May 1916. Persons in possession of permits were obliged to present a detailed report on the amount purchased. All the wool purchased in this way was to be brought to

¹⁰ See Appendices IX, X.

washing houses controlled by the Army Supply Department, and afterwards distributed to the mills, in proportion to the army orders they had received. All the unsold stock of fine wool was liable to be requisitioned.¹¹

At first all these regulations were applied only in respect of fine wool. It was thought that the supply of coarse wool, which was mostly of Russian origin, would be ample. But at the beginning of 1916 profiteering assumed extensive proportions. Experience had shown the Committee the way to combat this, and it immediately took strong measures. By a resolution taken on the 4th April, the right of buying coarse wool was given exclusively to owners of mills working solely for the army, and other firms and private persons were allowed to buy only on commission for these.

All the other cloth and spinning-mills working only partially for the army, or not at all, might buy wool only by special permission from the Committee, granted for each separate transaction. All holders of wool might sell it only on the presentation by the purchaser of a permit to buy. Moreover, firms working for the army might have their right to purchase extended to cover a nine months' instead of a six months' supply. The stock of wool remaining after all these demands had been satisfied was registered. The big sheep-farmers might sell their wool to other persons than those authorized to purchase, but only on the presentation by these persons of a recommendation signed by three big sheep-farmers.¹²

By a resolution dated the 29th April 1916, the Army Supply Department determined the amount of cloth that each mill was to deliver between the 1st June 1916 and the 1st January 1917.¹³ The total amount of wool to be distributed was fixed at 1,200,000 puds (19,200 tons), and was to be allotted in the following proportions:

	<i>Puds</i>	<i>Tons</i>
The manufacturers of regulation cloth	800,000	(12,900)
The spinning-mills	200,000	(3,200)
The manufacturers of semi-woolen fabrics	200,000	(3,200)

The transport of wool met with the same difficulties as that of

¹¹ See Appendix VIII.

¹² See Appendix IX.

¹³ See Appendix X.

cotton. The Committee had, therefore, to organize the preferential conveyance of wool to the mills in need of it.

But all these measures were more or less frustrated by the evasion of the regulations at the place of sale of the raw wool. Before the new clip of 1916 came on the market, it was discovered that in many places the regulation prices were completely disregarded by the sellers, and deals were concluded at prices exceeding these to a greater or less extent. As a consequence, all the estimates of the manufacturers working for the State, who were obliged to keep to the fixed prices, were completely upset. From time to time the Committee had recourse to requisitions of wool belonging to profiteers, and distributed it to mills in want of it. Wool belonging to persons who refused to observe the regulations, and wool left unsold for more than a month and stored with the evident intention of being kept back and sold at a higher price later on, was also liable to requisition.

Nevertheless the object aimed at was not attained. In the case of wool the policy of the State control was inevitably leading, as it did in the case of cotton, to the centralization of deals at the source of production. The wool market was in the hands of two concerns, which, profiting by their quasi-monopoly, were able to dictate their own terms to nearly all the cloth-making industry.

The autumn wool campaign showed that the big manufacturers had obtained possession of as much wool as they could. This in the first place brought on a sharp rise in prices on the market, and secondly deprived the mill-owners and public organizations working for the army of the possibility of providing themselves with the necessary stock of wool. These conditions led the Wool Committee, as it had the Cotton Committee, to attempt the suppression of all middlemen, and the concentration of all transactions with the producers directly in the hands of the consumers. It decided to organize a *Tsentroshest* (Wool Center) on the same lines as the *Tsentrokhlopok*.

As a result of this decision the cloth manufacturers in November 1916 organized an association for the purchase of wool named *Russkaya Sherst* (Russian Wool), in which about 90 per cent of the cloth industry took part. The work of this association was controlled by the Committee and the association became the Committee's agent for buying and distributing wool.

c. The leather industry.

The Leather Committee was from the very outset confronted with three important problems, besides that of fixing prices:

- (1) the supply of hides to the tanning industry;
- (2) the supply of tanning materials;
- (3) the supply of tanned leather to the boot-factories and saddleries.

The supply of tanning materials was assured by the All-Russian Association of Tanners, which concentrated in its own hands the purchase of these materials, chiefly in America. The association also took upon itself the distribution of these among the firms proportionately to the orders each had undertaken. The same association organized the supply of boot-making machinery, of which there was a great deficiency.

At the beginning of 1916 the conditions of the leather market became embarrassed, owing chiefly to the unequal distribution of raw materials between the several producing districts. It appeared that in certain localities great masses of hides had been bought up, while others were suffering from shortage. The boot factories were in great need of leather: their stock was nearly exhausted, while the Army Supply Department had in its warehouses considerable reserves unemployed. The Committee had but a small reserve at its disposal. In January 1916, therefore, the manufacturers insisted on an inquiry being held, and on the registration of the stocks on hand. The production of the tanneries was largely, in some cases completely, absorbed by work for the army. The general market suffered from acute shortage of certain kinds of leather.

One of the first measures taken by the Committee was the registration of stocks of raw material. On the 7th July 1916 the Committee was given wider powers, and it then took the following steps.¹⁴ All holders of leather, not excluding factory-owners, persons who had advanced money on these goods, and persons who possessed raw hides, were obliged to give information as to the quantity they held, of the quantity they had sold, and to whom they had sold it. The Union of Zemstvos was given the exclusive right of purchase of raw hides at the slaughterhouses.

But the Committee did not limit itself to the control of deals in

¹⁴ See Appendix XIII.

hides and of their distribution. The control was extended to production. All tanneries were required to prepare only those kinds of leather which were necessary for the use of the army, and in proportion to their maximum output. The tanneries that were not adapted to the preparation of kinds of leather needed for the army were allowed to produce other kinds only by special permission of the Committee. Moreover, all the tanneries were obliged to take their raw materials from the Committee or from the Union of Zemstvos, either to prepare them for the Committee or for their own use.

Having received the raw material for preparation, the tanners were to deliver it tanned at a place and time indicated by the Committee. A record of all hides tanned at the factories throughout the Empire was to be submitted to the Committee, which then distributed them to the factories working for the army. All holders of tanned hides were to give information of the quantity in their possession, with a specification of their quality. The Committee immediately on the receipt of this information either:

- (1) distributed the goods to the factories and organizations working for the army, or
- (2) gave the holder permission to sell them to these enterprises, or
- (3) bought them, paying the owner before the final delivery 50 per cent of the regulation price, or, if the price were not regulated, of the market price.

The dressed leather, if it were not sold within a fortnight, was liable to requisition. Dressed leather might be transported only on consignment to certain persons indicated by the Committee.

In this way the registration of hides and the control of the tanneries led to the centralization in the hands of the Committee of all the distribution not only of hides but also of dressed leather. Under these conditions the private market and private trade naturally came also under a certain degree of control. The same ordinance of the 7th July forbade all private dealings in dressed hides, unless they were used for the army. Thus the Committee became practically the only distributor of hides in the country. To meet this situation the powers of the Committee were widened in October 1916. In order to secure complete governmental control, it was authorized to carry out the following measures:¹⁵

¹⁵ See Appendix XV.

(1) to distribute all hides, leather, tanning, and other raw materials required by the industry, chiefly in view of the needs of the army and navy; when necessary, on the demand of the military authorities, all available supplies were to be diverted to the use of the army;

(2) to purchase hides and other raw materials and leather goods, and to concentrate all the articles in its own hands and distribute them to the individual factories;

(3) to supervise the application of the regulation concerning the sale of leather goods;

(4) to supervise tanneries, workshops, and stores, to inspect their books, and take copies from them if necessary, to appoint agents for the registration and supervision of production;

(5) to organize in different localities of the Empire local leather committees and stores.

The regulation of prices for leather goods and tanning and other materials required by the industry rested as before with the Minister of Commerce and Industry. The Committee only proposed the maximum prices to be fixed by the Minister. He was also vested with the power of ordering general and partial requisitions of leather goods and materials needed for the tanning industry. He was, moreover, empowered personally or through the Committees:

(1) to require private persons, companies, or banks trading in hides, leather, tanning, or other materials necessary for industry, and also owners of factories or workshops making boots or other leather articles, to give information relative to their stocks of hides, leather, and other materials, and finished articles, and to the demand;

(2) to check the information given by the inspection of all books and documents;

(3) to annul all contracts of sale concluded before the regulation of prices, if they were incompatible with these.

The control over the leather market towards the end of 1916 came very near, as we see, to a State monopoly. For the time being the Government confined itself to concentrating the registration of hides and the control of their distribution in the hands of the Committee, and to prohibiting private transactions in them. By this last measure the Government did not yet contemplate the complete suppression of private trade, with the intention of transferring it to the State.

The prohibition of private dealings in hides was due to the necessity of a more rigorous control by the Government over the stock of leather in the country, and the distribution of it to the factories working exclusively for the army. Therefore, the prohibition of sales for private purposes did not exclude the possibility of private sale to these factories. At any rate it was but one step further to concentrate all trade in the hands of the State; this step was taken during the Revolution of 1917.

PART IV

WAR-TIME ECONOMIC POLICY OF THE REVOLUTION
OF MARCH 1917

CHAPTER I

THE REVOLUTION AND THE VARIOUS SOCIAL GROUPS

THE deplorable economic condition of the country that was revealed towards the end of 1916 was without doubt an element that contributed to the outbreak of the Revolution in March 1917. The leading factor in the economic situation of the moment was the problem of food supply. The urban population had great difficulty in procuring the necessary provisions. This difficulty was the result of disorganization of railway transport. The isolation of the producing districts from the center of consumption greatly impeded the supply of food to the towns and made it exceedingly irregular. This irregularity of supply was due not only to the inefficient working of the railway service, but also to a number of other circumstances. Some of these were occasioned by the victualing policy of the Government, others by general war-time conditions. But these last were themselves largely the outcome of the economic policy of the Government.

The Government's policy in regard to the grain trade was inconsequent and unstable. In different districts different considerations were taken into account in fixing prices. This absence of uniformity completely disturbed the normal circulation of breadstuffs. They were deflected towards those markets where prices were more profitable for the sellers, and away from those where the prices were limited with a view to the interests of the consumer. On the other hand the results of an excessive issue of paper money began to be felt, and as at the same time the output of the manufactured goods required by the population began to decline, the peasants lost all interest in selling their produce to the town population, and all inducement to augment their agricultural production.

The area of cultivation of cereals, as well as of other crops, began to decrease in 1916. The difficulties of the industrial market grew with the increasing monetary confusion. The economic equilibrium of the country was completely upset. The greater part of the paper currency found its way into the hands of the rural population, which was acquiring large sums of money. Its demand for all kinds

of goods, instead of decreasing, grew continuously, while the manufacturing industries continuously declined and were no longer able to satisfy the demand. The peasants thereupon became disinclined to take their agricultural produce to market, which could give them nothing they needed in return, except at extravagantly high prices. Thus the supply of agricultural produce gradually decreased and the deficiency in food supply became more acute. In this respect Petrograd, owing to its geographical position, was most unfortunately situated. The shortage of food became apparent in December 1916. In the beginning of 1917 it became alarming. The dearth of supplies provoked popular disturbances, which rapidly developed and ended in a Revolution which in two days overthrew the Monarchy.

If the deficiency of food occasioned the popular disturbances, the aggravation of economic conditions was due to deeper and more complex causes. As stated above, the food crisis was intimately connected with the disorganization of transport on the one hand and the exhaustion of industrial production on the other. The disorganization of transport was mainly due to two causes—the scarcity of fuel and the scarcity of metal. The latter made it difficult to renew the rolling-stock, which, under the pressure of work for the army, was rapidly wearing out. There was a decrease in the output of engines, carriages, and trucks, in the repair of old rolling-stock, and in the production of railway materials. Although the extraction of coal in the Donetz Basin had increased, its transport was irregular and beset with difficulties, and its prompt distribution to the different districts met with obstacles due to the inefficiency of the service. The various features of the unfavorable economic situation, which became so conspicuous towards the end of 1916 and the beginning of 1917, were thus closely interconnected.

The Government's war-time policy was severely criticized by various sections of opinion, and this criticism had not only an economic, but also a political bearing. We have already noticed the distrust with which the Government regarded the unofficial organizations such as the war industries committees, the Union of Zemstvos, and the Union of Towns. This distrust was not confined to mere bureaucratic opposition to any display of public initiative in the organization of the national forces for the more efficient conduct of the War. To begin with, the unofficial organizations constituted a very impor-

tant piece of executive machinery, which the Government could not do without. Further, these organizations enjoyed the confidence of the population, and served as a guarantee in its eyes that the war-time policy of the Government should have in view the interests of the public and should be so directed as ultimately to lead to victory. But it was precisely the confidence shown in these organizations by public opinion which made the Government regard them with suspicion, and led it not only to put as many difficulties as it could in their way, but even to try completely to suppress them. In taking up this attitude towards organizations comprising various elements, but chiefly composed of representatives of the big industrial bourgeoisie and the landed gentry, the Government had a definite end in view, and did its utmost to discredit them. With this object, their proceedings (particularly in the provinces) were subjected to revision, and the representatives of Labor on the committees were arrested on the charge of belonging to the defeatist movement. In reality the workmen who took part in the work of the committees, as stated in a previous chapter, were partisans of "war to a victorious end," and entered the committees with this idea, in spite of the opposite view held by many of their fellow-workmen.

In June 1916, the labor group of the Central War Industries Committee published a statement of its opinions; in this it declared that: "it was a malignant calumny to accuse us of secretly harboring defeatist ideas; we should not have entered the war industries committees if we had not been partisans of an active war policy. The fact of our taking part in the work of the committees was understood by everyone to mean that the Russian workmen had decided to take part in the work of national defense."

The labor group in the Moscow committee made a similar statement: "Our country is going through hard times," they wrote, "fifteen of our provinces are occupied by the enemy; millions of old men, women, and children are without a roof over their heads, wandering homeless over the country. Many men have been killed by the enemy and their wives are dying of hunger. In these circumstances the working class has risen to defend its country. To supply the army with all it needs, to organize the civil population, to save the economic forces of the nation from disintegration, a great effort is needed and all the nation's energy must be rallied. Its initiative and capacity for self-help must be given free play."

In addition to measures of political repression, the Government had recourse also to others of an economic character. It began to restrict the number of orders distributed through the medium of the war industries committees, and instructed the Special Council for Defense to place orders direct with the factories. Many factories, having adapted their plant to work for the army, now remained without employment, and the Central Committee was obliged to take steps to procure some kind of work for them.

The political state of the country was such that the composition of the Government underwent continual changes; in the last months of 1916 its members were men casually appointed and utterly incompetent to deal with the economic problems of a period of war. Owing to the repeated displacement of the ministers in charge of the departments regulating the economic life of the country, every trace of continuity in the policy of the Government was lost. It fell into a state of complete confusion. The Government, if it undertook any important measure, was incapable of carrying it through successfully. It either executed its project very inefficiently, relying chiefly on its bureaucratic, incompetent officials, or else acted in the interests of the classes more intimately connected with itself.

The idea which found most favor in government circles was the suppression of profiteering. It was upheld with special ardor by A. N. Khvostov, appointed Minister of the Interior a short time before the outbreak of the Revolution. But this effort manifested itself chiefly in confiscations and requisitions of goods, and arrests of persons suspected of illicit traffic. In these measures, the old antagonism between the gentry, from whom the majority of the government officials were drawn, and the commercial and industrial circles, which were regarded by the bureaucrats as an inferior order of society composed of people engaged in illegal and dishonest dealings, undoubtedly played no inconsiderable part. Instead of attaining their object, these measures gave further opportunity for profiteering. The government machinery was incapable of regulating either supply or transport, and therefore official prices were disregarded, and the free prices of the open market took their place and rose day by day. The scarcity of raw materials required for the production of articles needed by the army, and the great demand for these, caused a continuous increase in their price. Even the Govern-

ment itself was forced to have recourse to the market, and violate its own rules as to prices, supply, transport, and sale. The causes that brought about this reign of scarcity and profiteering lay in the economic conditions of a period of war, and to attempt to combat them with government ordinances was worse than useless.

By the beginning of 1917 this had become apparent, and public opinion began to demand greater consistency in the Government's war-time policy, and more trustworthy agents for carrying it into effect. In taking an active part in the Revolution, the general public were directly influenced by their growing dissatisfaction with the political situation and with the increasing economic confusion. But the intelligentsia and the politically conscious elements among the industrialists, the gentry, and the working class, saw in the Revolution, that is to say, in the overthrow of the old régime, the best way of removing the obstacles to an active organization of the country for victory. During its first months the watchword of the Revolution was more effective defense.

It cannot be said that the leaders of the Revolution had at the outset any clear and decided program of war-time policy. Only later did the socialists, who played such an important part at this juncture, put forward positive demands for a definite policy. At first attention was turned to the removal of all officials who had been engaged in carrying out the economic policy of the late Government, and replacing them by others. There were two reasons for this. In the first place these officials had proved themselves completely incompetent. Secondly, as has been said, representatives of the general public and of the democratic elements were either not admitted at all, or admitted unwillingly, to take part in the numerous committees instituted to give effect to the economic policy of the late Government. As we have seen, representatives of labor were allowed to sit only on the war industries committees, but even this participation was hindered by the Government. As for the official institutions, such as the committees of supply, the Special Councils for Fuel and Defense, even the district factory boards, from all these the representatives of labor, of the intelligentsia, and of the mass of the population were excluded.

Having removed the irksome tutelage of the old bureaucratic Government, and having destroyed the obstacles in the way of the

manifestation of public opinion and initiative, the social classes that had carried the Revolution, were naturally eager to apply their energy and activity to practical work. Public opinion felt itself the master of the State, and aspired to take the directing rôle, where formerly it was obliged only to obey orders.

The industrial classes aspired to take advantage of their freedom from bureaucratic interference. The general public, the mass of consumers, and the workmen, under the influence of the recollection of all the grievances against the late Government, which was noted for the corruption prevalent among its officials and for the patronage it accorded to certain influential groups and even persons, were not inclined to leave the war-time economic policy free from their control, and wished to take a part in its administration, which they considered had not been directed in the interests of the bulk of the people.

It must be recognized that there was no unanimity in the outlook on the economic policy to be adopted. Up to the Revolution the policy had been directed, not so much to the control of production, as to that of the distribution of raw materials and produce; *i.e.*, it sought to control the circulation of trade, and was, therefore, not approved of by business men. The Revolution proclaimed the freedom of the individual. It had been achieved, said the representatives of commerce, in the name of freedom, in the name of emancipation from the old, crushing, all-powerful State authority, and that which had been effected in the field of politics must be carried through in the economic field. In the new conditions of political freedom the commercial class and all commercial activity must also be free. Therefore not only was it impossible to extend State control, but even the retention of the existing war-time economic policy was, according to their views, a manifest infringement of the principles announced by the Revolution.

The representatives of industry, however, held the opposite view. The two and a half years of the War had revealed all the undesirable results for industry of free commerce, under war-time conditions. The industries engaged on war work were interested in retaining the privileged position that they held in regard to the supply of fuel, raw material, machinery, financial assistance, transport, and fixed prices. If commerce were given a free hand, the industries working

for the army would come under unfavorable conditions. It was to avoid this that it had been found indispensable, as explained in previous chapters, to eliminate the middleman. The institution of bodies such as the *Tsentrokhlopok* and *Tsentrougol* and others was intended to secure this object, to bring producers and consumers into direct relations, and to do away with the intervention of commercial agents. Thus the industrialists were not antagonistic to the war-time economic policy of the Government, and were only anxious to have this policy entrusted to persons competent to deal with industrial problems, who could assure the regular supply of raw materials, and guard their interests.

The interests of the mass of the population were protected by the coöperative societies. These had during the War acquired a great importance. Taking advantage of the help they received from the zemstvos, and particularly from the Union of Towns, they took an active part in the measures connected with the food supply, and also in the realization of the war-time economic policy. But neither did the old régime show any partiality for the coöperative societies. The personal and business relations existing between many government officials and the leaders of industry were too strong, and preference was always given to the latter by the Government. There were, moreover, political reasons which made the late Government look upon these societies with disfavor, and discourage any great development of the coöperative movement, for it saw in them an organization of popular forces, to which it was always hostile.

The Revolution freed the coöperative societies from this unfriendly supervision, and they took advantage of this freedom first to participate on a larger scale in the attempt to organize the country for a more successful continuation of the War, and secondly, to improve their own financial position. They were therefore partisans of the measures adopted to curtail the excessive freedom of commerce, but they strove to take the place of the machinery of private commerce, and asked to be themselves exempted from the restrictions to which private trade was subjected.

The position taken up by the working class and the socialist parties that represented it was quite different. They were for the extension of State control. Two factors continued to bring about this attitude. The economic policy advocated by the socialist parties was

in the first place dictated in their opinion by the changes in economic life brought about by the War, and secondly by the party program which certainly greatly influenced their policy and their conduct.

These parties thought that the War, as it had rendered necessary the vigorous intervention of the State in the economic life of the country, and had given rise to a so-called "war-time socialism," would lead in future to a new State policy and bring about new forms of economic life. Therefore, an extended and defined war-time economic policy seemed to them necessary, not only as a more active way of organizing the country for victory, which they also had in view, but as a means of carrying the program of socialism into effect after the War. These two ideas were closely interwoven in the program put forward by the socialists during the first period of the Revolution, from March to October 1917, and undoubtedly had an influence on the policy of the Government.

To enable the reader thoroughly to understand all the stages of this policy during the period in question, an outline of the economic program of the socialist parties will be of assistance.

CHAPTER II

THE WAR AND THE ECONOMIC PROGRAM OF THE REVOLUTIONARY PARTIES

IN the sphere of economic policy the Revolution had two problems to solve: the organization of the nation for victory, and the creation of new economic and social conditions, to which the old régime had always been opposed. As the late Government had been especially hostile to the organization of labor, it was natural that the demands of the socialist parties should assume a particularly violent form, which had its influence on the whole economic policy of the Revolution. Under the old order the working classes were deprived of the right of association and of the right to strike. There was no real protection of labor and, as has already been mentioned, they had no representatives to defend their interests.

One of the first acts, therefore, of the new revolutionary Government was to pass a law creating a body representative of labor in the form of labor committees. This measure at first had no direct bearing on the economic war policy of the Government, and its mention would have been out of place, if it were not that these committees gradually obtained a preponderating influence in determining that policy. On the 22nd April 1917 the Provisional Government enacted a law organizing labor committees in certain factories. These committees were to be elected by all the workmen in each factory by general, equal, direct, and secret ballot. Their functions were as follows: (a) to represent the interests of labor in all questions connected with the relations between employers and employed, such as wages, working hours, rules of conduct, etc., (b) to decide disputes arising between workmen of the same factory, and (c) to represent labor in its relation with the Government and other public bodies.

The intention of this law, supported by the more moderate labor representatives, was to give labor, which up to then had had no legal organization, a representative body. But the overwhelming majority of labor representatives gave it a much wider interpretation. Almost from the first days of the Revolution, labor control of production became the slogan of some of these. In what way this

control was to be realized, what were to be its functions, what was to be the position in its relation to the management of the factory, and what part of the responsibility was to fall on them,—all these questions were by no means defined. Whether the committees were to supervise the existing management, and leave the financial responsibility to the owners, or whether they were to take over the whole management was not clear.

The opinion of the labor masses was that the employers, taking advantage of the inefficient policy of the old Government, had used the industrial conditions of the war period exclusively in their own interest, amassing excessive profits, which rendered them careless of more efficient methods of business.

They thought that the employers refused to make any sacrifice in the matter of outlay; made no efforts, not only to increase, but even to maintain the level of production; neglected to supply themselves with necessary materials and to keep up the working capacity of their factories. The labor committees held that as the measures undertaken by the Government had proved insufficient, and as the Government itself was in the hands of the representatives of the upper classes, whose interests it would be sure to uphold, it was the business of the workmen themselves to assume the control of all the industry of the country.

The labor committees would naturally provide the agency by which the labor control of industry was to be carried out. According to the law of the 22nd April, they were formed separately for each enterprise, and elected by the workmen employed in it. These were, of course, well acquainted with the working of their own factory, with its needs, its defects, and the difficulties with which it was confronted. It was the workmen, therefore, who could in the simplest way, and with the least perturbation, effect the control.

Such was the opinion of the majority of the labor leaders. The minority did not approve of this program. They pointed out that the control of industry by the workmen could not alone solve all the practical questions mentioned above. If the control was carried out consistently to the end, the labor committees would inevitably become the actual managers of the enterprises, and the administrative and financial responsibility would therefore devolve on them. The administrative charge would at the outset involve the committees in

a series of extremely complex problems, for the solution of which the members had neither enough knowledge, capacity, nor experience. As to the financial responsibility, this the committees could not possibly undertake.

The capital necessary for carrying on the work belonged either to the owners of the concerns, or was controlled by the State. As long as there existed a right of private property in the means of production, the owners might easily leave the enterprises without the necessary capital. What would the committees do in such a case? By taking over the administrative and financial responsibility they were dooming industry to ruin, and the working classes to distress.

Lastly, if the control of industry by labor were to be merely a form of supervision, and the committees were not to make an effort to assume the management of the factories, this control should not be entrusted to some one class of society, acting on its own initiative, and according to its own judgment. It should be undertaken by public authority, and acted on through legally empowered agents. But as we have said, the partisans of this point of view were in the minority.

The executive committee constituted for the convocation of the first conference of the delegates of the factory committees of the Petrograd region, which was to organize an All-Russian meeting, published a manifesto in which it definitely laid down the lines on which, according to the opinions expressed by the majority, the labor committees were to work. "Every day," it said, "is bringing Russia nearer to an economic catastrophe; the factories are faced with the possibility of having to suspend work for lack of fuel and raw materials. The railway service is completely disorganized; there are neither sufficient engines nor carriages. If the factories are closed, the first to suffer will be millions of workmen and employees, who will be thrown on the streets as unemployed. The conference," continued the manifesto, "must endeavor to solve the problem of the general conditions of industry in this country. It must also remember that the measures taken by the Government are not sufficient, and that a direct intervention on the part of the workmen themselves is necessary in questions relative to the regulation of industry and the distribution of materials in the country." The organs of this control of industry and distribution were to be the labor committees.

At the conference of the factory committees, in May 1917, the

representatives of labor explained the necessity of control by the fact that the owners refused to carry on their business. "From the beginning of the Revolution the administrative staffs of the factories have relinquished their posts. The workmen have practically become the masters. To keep the factories going the labor committees have had to take the management into their own hands. In the first days of the Revolution, in February and March, the workmen left the factories and went on to the streets. The factories stopped work. About a fortnight later the mass of workmen returned to their work. They found that many factories had been deserted. The managers, generals,¹ engineers, mechanics, and foremen had reason to think that the workmen would wreak their vengeance on them, and had disappeared. The workmen had to begin work with no administrative staff to guide them. They had to elect committees which gradually reëstablished a normal system of work. The committees had to find the necessary raw materials, and altogether to take upon themselves all kinds of unexpected and unaccustomed duties."

These explanations were partly true. In many cases the factories had really been deserted by the staff in the first days of the Revolution in February. In other cases, after the first confusion had passed and measures had been taken to restore a certain degree of order, the owners would not agree to a series of demands presented by the workmen, and thought it more advantageous to close their factories in hopes of better conditions in the future. In some cases in the hope of saving their factories, the owners had on their own initiative invited the workmen to form their committees, and surrendered to these such of their functions as were, under the new revolutionary conditions, particularly difficult and demanded delicate handling. All this actually took place, and in a few instances control by labor was realized; but in only a few cases. The real ground for the demands of labor lay elsewhere, and depended on the general program of the socialist parties.

Consequently the conference that took place on the 31st May 1917 passed a resolution to the effect that: "the only way to salvation lay in the organization of a thorough control by labor over production and distribution. . . . To secure this control it is necessary

¹ Reference to State-owned munitions factories, etc., the administration of which was drawn from the army.

that in all institutions having executive authority there should be a labor majority, and that the factory committees should be invested with the right of control and the power to supervise the commercial and banking books, and to obtain full information." This resolution was founded on general considerations of principle as to the lines of the economic policy to be followed during the War. It gave the working class directions for their guidance of a general character, independent of the conditions existing in any particular factory.

Summing up the proceedings of the labor movement during this period, one of the leaders of the movement admitted that: "seeing the inability of the Provisional Government to realize any control, or to intervene with any real authority in the economic life of the country, the workmen at last seized the control over industry, forbidding any removal from the factories of raw materials, fuel, or machinery." We have here, undoubtedly, one of the reasons that made the workmen insist on control. The partisans of control held the opinion that the Provisional Government did not apply State control in a sufficient degree. As to the need for it there was no difference of opinion among the socialist parties.

When in the beginning of May 1917 the first Coalition Government was formed, in which all the socialist groups were represented, the new Government published a declaration dated the 6th May, in which it defined its economic policy in the following terms: "The Provisional Government will consistently and resolutely combat the economic confusion prevailing in the country, by a systematic enforcement of State and public control over industry, transport, commerce, and distribution of products, and if necessary will have recourse to the organization of production." This program was in complete accordance with the demands put forward by the labor committees, by the socialist parties, and the Soviet of Workmen's, Peasants', and Soldiers' Deputies.

The first All-Russian Conference of Trades Unions (*Professionalni Soyuz*), which took place in June 1917, passed a resolution embodying the economic policy to be followed. It included the fixing of prices of the most important products; their equitable distribution; and the supply to industry of raw materials, machinery, and labor. Production itself was to be brought under the supervision, and in its most important branches under the direct control, of the Govern-

ment. A central agency, assisted by local agencies, was to be formed to give effect to the measures decreed for the regulation of the production, transport, and distribution of goods. Measures were to be taken immediately to syndicate industries producing articles of general consumption, or to form trusts where this was compatible with the prevailing economic and technical conditions.

The paragraph in the declaration of the Provisional Government quoted above setting forward the economic program, was introduced on the demand of the socialist members of the Government. But it referred to the desirable measures in general terms; a more definite and complete plan of action was required, and with the purpose of supplying this, a conference was held of representatives of three Ministries—Labor, with which the initiative in the matter rested, Commerce and Industry, and Finance. The conference elaborated a program, in which the following basis of an economic policy was laid down: government supervision was to be established over industry and over the banks financing it, through government commissaries delegated to take part in the management of the various businesses, with whom were to be associated boards of labor representatives. It was further recognized that a more stringent State intervention was desirable in the most important industries, such as the mining, smelting, and textile industries. A State monopoly of coal and petroleum was thought advisable. For other industries a compulsory syndication of enterprises under State control was recommended.

The State control of production and distribution was to be effected through the intermediary of the committees of supply, which existed already, and had worked before the Revolution. But their constitution and their methods of work were to be thoroughly reorganized. To begin with, they were to consist mostly of representatives of labor organizations, of coöperative societies, and of the democratic intelligentsia. In addition to these committees controlling the several branches of industry, there were to be formed general committees or councils of supply, to deliberate on general measures of economic policy, and to coördinate the work of all the committees. Over all these committees there was to be a Supreme Economic Committee, whose duty would be to control the economic policy of the country as a whole, and in particular the conditions of labor.

It must be observed that it was only after the Revolution that the

labor question, and the necessity of its regulation by the State in view of the peculiar conditions caused by the War, were recognized as a problem of prime importance. The supply of labor had never previously been the object of consistent policy.

Now the program of the Provisional Government dealt, among other points, with the policy to be followed in regard to labor supply. The Government was to take on itself the regulation of the supply of labor over the whole country, for each district and every branch of industry. To this end a general obligatory labor conscription was to be introduced. Wages were also to be fixed by the State. The agents of the Government were to fix a minimum, and to control the terms of collective contracts between employers and employed for whole branches of industry. Lastly all disagreements and conflicts between workmen and employers were to be adjusted by a board of conciliation in every concern working for the civil population; and in some cases in those working for the army, by a court of compulsory arbitration.

This program provoked sharp objections on the part of the manufacturers, and was to be the cause in the near future of a series of ministerial crises in the Provisional Government. It was not published in the name of the Government, though some parts of it were put into practice. But the Ministry of Labor took this program as the guiding principle in its work and endeavored by every means to give effect to it. It was for this reason that the Ministry took so prominent a part in the questions relating to war-time economic policy, and it was on its initiative that many items of the program were carried out.

Certain parts of the program were the logical outcome of the measures to which the old régime had been forced to resort. It was precisely from this point of view that its partisans among the moderate socialists viewed it. Moreover, as we have observed, vigorous State intervention in the economic life of the nation was regarded by these elements as analogous to what had taken place in all the belligerent countries. In England this had taken the form of State control, in Germany of a mixed official and unofficial organization of supply, and of compulsory syndication.

The British Cabinet Minister, Mr. Arthur Henderson, expressed the ideas of the moderate Russian socialists as well as his own, when

during his visit to Russia in 1917, in addressing the Moscow Trade Exchange Committee, he said, "When we speak of an energetic intervention of the State in production with the idea of regulating and controlling it, we do not, of course, mean socialist production nor State socialism, but the minimum of measures which is necessary in national business life, and which has already been realized in England." Many of Mr. Henderson's Russian partisans, likewise, did not think that the program they advocated was a realization of socialism. But we must add that they differed from Mr. Henderson in thinking that the same measures, if carried out at that time, would remain after the War, and might in future be the foundation for more rational forms of economic life. Finally, many socialists regarded the energetic intervention of the State in the industrial life of the nation as a step towards socialism, and it was that which induced them, not only to support the program, but to endeavor to make it as far-reaching as possible, and when put into practice to bend it as much as they could in the direction they thought most favorable to this end.

It was under these influences that the war-time policy of the Government took shape, and was put into practice during the first period of the Revolution of 1917.

CHAPTER III

REFORM OF ORGANIZATION

It was natural that the new social groups which the Revolution had brought forward, and to which it had given a share in the Government, should also demand a place on the committees directing the economic policy. As was observed in the preceding chapters, the new social elements—the representatives of the working classes, the democratic intelligentsia, and the town population united in co-operative societies—had demands of their own both as to the direction of the economic policy, and as to the constitution of the various organs controlling that policy. In the latter domain, the new elements desired first to reorganize the existing committees, and secondly to create new bodies to settle questions which, for one reason or another, had not been dealt with before the Revolution. Most of the committees set up during the War, prior to the Revolution, were maintained; though some of them lost their former importance, partly because under the new conditions they were no longer wanted, partly because their functions were taken over by new committees. Thus the Special Council for Defense was practically abolished very soon after the Revolution. As this Council consisted mostly of representatives of different administrative departments, the reform of the latter naturally led to the reform of the Council itself.

At the beginning of the Revolution the reform of the committees supervising the several branches of industry was carried out in a somewhat chaotic way. In the provinces many local committees remained without chairmen, as many officials of the old régime either resigned or were dismissed. The representatives of unofficial bodies took the management of the committees into their own hands. From the very beginning representatives of labor, of the coöperative societies, and of the intelligentsia were introduced into the committees.

Among all the local organs of the Council for Defense it might have been expected that the chief interest would be concentrated on the factory boards. But as the business of these boards was to supervise the big industrial enterprises, where the workmen had seized control on their own initiative, the revolutionary parties were inclined to boycott them. Moreover, as we have seen in the preceding

chapter, the labor committees tried to assume the control of factories. It was they who controlled the working, the supply of raw materials, of fuel, etc. Under these conditions the rôle of the factory boards became superfluous.

As the control of industry by the workmen was viewed by the moderate elements with misgivings, and as in general the ideas of the revolutionary parties on economic policy during war were quite different from those prevalent before the Revolution, no clear point of view was adopted in regard to central and local committees in general. The revolutionary parties, led by the Soviet of Workmen's and Soldiers' Deputies, advanced a program of their own, the adoption of which, as was shown in the preceding chapter, would have entailed a complete reorganization of all the existing system. Unofficial, as well as State institutions, such as the war industries committees, the Zemstvos and Town Unions, etc., would have had to be reformed in their constitution and functions in accordance with the ideas of the revolutionary parties. Among the bodies created by the Special Council for Defense, the Committee for the distribution and supply of metal was practically the only one which was suffered to carry on its work on the same lines as before the Revolution.

At the conclusion of a general meeting of the Special Council for Defense, in August 1917, this body dissolved itself after adopting the following resolution:

(1) It is necessary that representatives of the organizations of the revolutionary democracy should be introduced into all the central and local branches of the war industries committees, as well as into the Zemstvos and Town Unions.

(2) The democratization of the Unions of Zemstvos and Towns must be carried out by the representatives of the corresponding democratic organs of self-government. Until elections can be held in the zemstvos and in the Unions of Zemstvos and Towns, representatives of the organization of the revolutionary democracy must be introduced in sufficient numbers to guarantee their preponderating influence in the work of these unions.

(3) A similar number of the representatives of the revolutionary democracy must be introduced into the war industries committees.

(4) A similar organization must be effected in all official and unofficial bodies.

(5) The representatives of the revolutionary democracy must enter all these institutions with the idea of intensifying their work, and directing it in the interests of a democratic State. At the same time all war work must be coördinated in accordance with the principles set forth by the All-Russian Congress of Soviets of Workmen's and Soldiers' Deputies on questions of economic policy, of production, transport, and supply.

This resolution was adopted by a majority, but met with sharp opposition from the minority, as did some of the reports on economic policy. The representatives of the Bolsheviks, refusing to take part in any organizations connected with work for the War, left the meeting. Another group of members disapproved of the demand for democratization to the extent proposed by the resolution. Lastly, a considerable divergence of opinion arose with regard to the economic policy to be pursued. The representatives of the Soviet of Peasants' Deputies proposed in a special report to institute a State control of factories engaged on war work, in view of the great decrease in output, and expressed a wish to subject the conditions of labor to State regulation. This proposal provoked the vigorous objection of the representatives of labor. The conference ended without coming to any definite decision, and after passing the above-mentioned resolution separated.

The Special Council for Defense practically ceased to exist. But the fundamental principles expressed in its declaration with regard to the reorganization of the administration of supply were put into practice. Thus the composition of the Special Council for Supply of Fuel was considerably altered. The new members who were introduced were representatives of the Ministry of Labor and the Ministry of Supply, six representatives of the All-Russian Soviet of Workmen's and Soldiers' Deputies, two representatives from the Executive Board of Trade Unions, and two from the district Soviet of the Donetz Basin, one each from the Soviets of the Ural, Moscow, and Baku districts, and six delegates from the All-Russian Soviet of Peasants' Deputies. The composition of the local committees for fuel was also changed, and was made to include a similar representation. Similar alterations were made in the committee for the distribution and supply of metals, as well as in the council attached to the chief commissioner.

Along with the reforms of old committees, new committees were

formed. One of the chief defects of the numerous regulating boards formed before the Revolution was their lack of system and coherence. It is true that the four Special Councils (for Defense, Fuel, Supply, and Transport) met from time to time to deliberate together, but this was done in a casual way, not regularly, and the work of each was quite independent of the others. This undoubtedly was one of the causes of the small success that attended their work. Meanwhile, as the disorganization of the economic life under the influence of war conditions became greater, the measures to be taken in different departments of economic policy were found to be more closely interdependent.

Thus, for example, the acute crisis in the supply of cotton, which became apparent in 1917, was caused partly by the fact that the cultivation of cotton in Turkestan had decreased in consequence of the difficulties of supplying food in that province; and partly in consequence of the high price of bread, which made the cultivation of grain more profitable than that of cotton. One of the first measures to be taken in order to encourage cotton-growing was to supply Turkestan with the necessary foodstuffs. The same problem arose in the mining district of the Donetz.

But the regular supply of foodstuffs, on the other hand, depended on two important factors: on the regularity of the transport service, and on the supply to the rural population of articles of prime necessity. It has already been stated that owing to various economic and social changes that had taken place during the War, the peasants became unwilling to bring their produce to the town markets. There had been, moreover, a serious decline in the supply of goods for peasant consumption and of agricultural machinery and tools offered for sale in the towns. The metal market, especially, was undergoing a sharp crisis. The supply of necessities for the rural population depended to a great extent on the maintenance of the metal industry, and this in its turn depended on the supply of coal on the one hand, and on the regularity of the railway service on the other. Thus all branches of the economic problem were closely interdependent. It was an obvious measure to attempt to bring into harmony all the regulating institutions working in different branches of industry, to coördinate their work, and to direct them all to one end. In the hope of accomplishing this, the formation of the so-called committees of supply was proposed. This idea, as we have seen, had been

suggested before the Revolution—in 1915 among the parties of the Duma; and the bill for the creation of a Ministry of Supply, introduced by the Constitutional Democratic Party (Cadets), had been rejected on political grounds. It was natural, therefore, that now, in the middle of 1917, when the economic conditions brought about by the War, which had been foreseen ever since 1915, had become much more acute and obvious, the idea of forming committees of supply should again be brought forward.

These committees were at first formed on private initiative, and in a very chaotic manner, as a result of meetings of the representatives of various boards and institutions to deliberate in common. Gradually, however, these meetings assumed a more regular character and acquired a more permanent standing. The factory boards, the local committees for fuel, the committees for transport, and the local committees for food supply, etc., all these committees of which half the members were now representatives of labor, of the peasants, and of the democratic intelligentsia, were henceforth combined into one general organization, which received the name of committees of supply. Alongside of these, in the large centers, local committees of supply were formed, which devoted all their energy to concentrating in their hands the whole business of supply, by which was meant in reality all measures connected with economic policy.

All the committees of supply were formed on the same lines. Not less than half of the members were representatives of labor and of various democratic and revolutionary groups. Besides these the committees included representatives or local agents of all the Special Councils, representatives of industrial and local self-governing bodies, of the war industries committees, and of the Zemstvos and Town Unions. The old committees, previously described, for each branch of industry continued to exist alongside of the new bodies, and we shall have occasion to mention them again later on.

The organization and activity of the new committees constantly encountered difficulties of various kinds. The chief of these was the delimitation of the sphere of action of each. The representatives of the democratic groups insisted on the local committees being recognized as official institutions, and endowed with public authority. But this naturally could not be done before the central Government had decided on a definite plan of economic policy. A bill for this purpose was proposed by the Minister of Labor, but some of its clauses

aroused the keen opposition of the representatives of the manufacturers, which caused the Minister of Commerce and Industry to resign.

However, the committees of supply were soon practically ousted by other bodies, closely connected with the new policy in the matter of food supply adopted by the Provisional Government. Although another treatise¹ deals in detail with the policy and organization by which the problem of food supply in war was met in Russia, a brief outline must be given here of the changes that befell the institutions entrusted with this problem, as they played an important part in the control of the industrial market.

As explained in Part I of the present work, until March 1917 the control of food supply was in the hands of the Special Council for Supply, one of the four Special Councils set up on the initiative of the Duma. During the first days of the Revolution, as early as 13th March 1917, the Provisional Committee of the Duma and the Soviet of Workmen's and Soldiers' Deputies jointly appointed a Food Committee (*Prodovolstvenni Komitet*). One of the first acts of this Committee was to instruct the zemstvos and municipalities to replace the commissioners of the Special Council for Food Supply by provincial food committees constituted on widely democratic lines. The Special Council itself was practically suppressed, and on the 22nd March the Provisional Government instituted in its stead a State Food Committee, which was instructed to "elaborate an imperial scheme of organization for the supply of food, and to lay down the general policy to be followed."

When the first Provisional Government fell on the 18th May, and a coalition government was formed, a Ministry for Food Supply was created. Among other duties, it was charged with the following:

- (a) collection of supplies of food and their distribution to the army and the population;
- (b) the encouragement of the production of foodstuffs, and the supply to agriculturists of seeds, metal goods, machinery, etc., and also labor;
- (c) the collection and supply to the rural population of other articles of prime necessity;

¹ P. B. Struve, *Organization and Policy of Food Supply in Russia during the War*, of this series of the *Economic and Social History of the World War*.

(d) the regulation of production and consumption, and the control of prices of foodstuffs and of articles of prime necessity.

The State Food Committee was placed under the orders of the new Ministry. On the 7th April was issued a provisional regulation for the organization of local food committees, pending formation of normal democratic, self-governing bodies, which were to undertake all the work of food supply. These committees were to be set up in the provincial and district towns, in rural districts and other divisions, and among their duties was that of supplying the population with articles of prime necessity. In the following May commissaries were instituted, endowed likewise with extensive powers. Later on, when the collegiate system of a strongly democratic character, common to all these committees, began to prove unsatisfactory, the old pre-revolutionary institution of commissioners was reintroduced.

As we see, the measures taken for the provision of food, from the very first days of the Revolution, were closely connected with the supply to the population of articles of prime necessity. This connection had been suggested before the Revolution in certain political and economic circles.

On the 4th April the Provisional Government adopted a resolution recognizing the necessity of organizing the supply of these essential commodities, and entrusted this duty to the Minister for Food Supply and the local branches—or provincial committees, which practically came to fulfil the part of the Committee of Supply as understood by the democratic groups, at whose instance they had been formed.

The duty of the Ministry for Food Supply was merely to collect the necessary goods, and regulate their distribution. Prices continued to be fixed as heretofore by the Committee of Supply, which had existed before the Revolution. But the whole control of the textile market, the regulation of the sale of raw materials and of manufactured goods, their distribution and supply to the population, all these functions were now transferred from the Cotton, Flax and Jute, and Wool Committees to the Minister for Food Supply.

The great number and the variety of these controlling institutions and committees, which were formed on private initiative, or at any rate were not correlated by a general plan and direction, resulted in economic chaos. The need of a central organ to direct and coördinate

all these committees in a united economic policy was felt to be urgent.

As during the War the State, in its various branches, was the most important consumer, and as the conditions of the market depended on its demand, it was evident that the principal party interested in the coördination of industry was the State. An attempt was made to attain this end, in the first instance, by means of a so-called Providing Committee (*Zagotovitelni Komitet*), attached to the Ministry of Commerce and Industry. This Committee was to "encourage a regular and active development of industry by introducing a consistent and systematic plan of acquiring stocks of raw and semi-manufactured materials and manufactured goods wholesale, both at home and abroad, wherewith to meet the demand of the various government departments, the zemstvos, municipalities, and other public institutions, as well as industry and commercial undertakings." The Committee was instructed to prepare a plan of procedure for this purpose, and particularly:

- (1) to ascertain the quantities of materials required by government departments, public departments, public institutions, and industrial enterprises;

- (2) to ascertain to what extent this demand could be satisfied on the home market, and to what extent it would have to be met by foreign purchases;

- (3) to elaborate a plan of distribution of orders at home and abroad;

- (4) to fix the prices at which orders might be executed at home;

- (5) to draw up models of normal contracts;

- (6) to unify orders abroad for raw, semi-manufactured, and manufactured goods.

The various government departments, public bodies, and industrial organizations were all represented on the Committee. The Committee had attached to it (by the law of the 11th June 1917) a special interdepartmental subcommittee, whose duty it was to discuss and definitely to decide on the prices to be paid in respect of mass orders for raw materials and manufactured goods.

The formation of the Providing Committee, however, did not in the least solve the problem of economic policy with which the Government was confronted. The problem was wider and lay deeper. The

Committee only established uniform conditions for government orders and purchases, and introduced a more rational use of home products to meet the State demand. No doubt the Committee, by a judicious discharge of its duties, ought to have helped to lessen the chaos prevailing in the work of government supply, each department acting on a system of its own, and under different conditions, according to its relations with the trade on the one hand, and to the fortuitous conditions of the market on the other. At a time when State orders played so important a part, a uniform and systematic plan of action was of no small advantage.

But to achieve this was to solve only part of a wider and more complex problem: the regulation of the whole economic life of the nation in accordance with some definite program. In other words, the problem lay in the creation of one central body that might determine the first principles of a general war-time economic policy, set up the necessary organs for giving effect to this policy, and direct their work to a single end.

This purpose of bringing the work of all the numerous committees of control into harmony with the general requirements of the State was not attained by the formation of the Providing Committee. But it was just this problem that was of the highest importance at a moment when the various social groups and political parties were each putting forward its own plan and criticizing every act of the Provisional Government. A central body was, therefore, urgently needed, which could decide on a plan of action as the result of a general deliberation by all public groups and parties; an organ which might become a kind of legislative body for all questions of economic policy. The Provisional Government adopted this view, and on the 21st June 1917 passed a law creating an Economic Council and a Supreme Economic Committee. The leading features of this measure were as follows:

The Economic Council was constituted under the presidency of the Prime Minister or his deputy; the Ministers of Agriculture, Commerce and Industry, Food Supply, Transport, Labor, War, and Marine, or their deputies, were to be members, as also the deputy chairman of the Supreme Economic Committee and representatives elected by the following bodies: three by the Soviet of the Workmen's and Soldiers' Deputies, three by the Soviet of Peasant Depu-

ties, three by the Permanent Council of the Congress of Representatives of Commerce and Industry, one by the Council of Bankers, three by the Permanent Council of the Congress of Coöperatives, two by the Permanent Council of the Congress of Trade Exchanges and Agriculture, one by the Permanent Council of the Congress of Representatives of Small Industries, three by the Central Bureau of Trades Unions, one by the Union of Towns, one by the Zemstvos Union, two by each of the following scientific societies: the Free Society of Economics (*Volno-Ekonomicheskoe Obshchestvo*) and the Society in Memory of A. I. Chuprov; the Council further included the chairmen of all the subcommittees of the Economic Council and two representatives from each of the regional committees.

The work of the Council was to consist in the discussion of all matters of economic policy. These matters might be introduced on the initiative of members of the Council, submitted by the Government, or raised by the Supreme Economic Committee. All the decisions of the Council were to be subject to the approval of the Government, with the exception of such as did not exceed the special powers conferred on it by the Government. For the preliminary elucidation of matters to be considered or for special purposes, the Council might form subcommittees, and local committees, temporary or permanent, in the provinces. All the special councils and committees of supply were placed under the jurisdiction of the Economic Council, and were to act in future in accordance with the Council's directions.

The Supreme Economic Committee was charged with the duty of coördinating and supervising the carrying out by the departments concerned of all measures for the regulation of the country's economic policy. This Committee consisted of representatives of the Ministries of Labor, Finance, Agriculture, Food Supply, Commerce and Industry, War, Marine, and Transport. It was presided over by the Prime Minister, or as more often happened, by a deputy. The Supreme Economic Committee had a special conference attached to it. It included two representatives of the Economic Council; the Chief Commissioners for metal, fuel, and factory boards;² the agents for the collection of supplies of bread, forage, sugar, salt, meat, and fats; the representatives of the committees for leather, cotton, cloth,

² See *supra* pp. 99 *sqq.*

wool, and flax, and other industries. Experts might be invited by the Committee to take part in the discussion of the Conference.

The Supreme Economic Committee was charged with the execution of the program drawn up by the Economic Council and ratified by the Government. To this end it was the duty of the Committee:

(a) to direct the work of the institutions controlling the country's economic system;

(b) to coördinate the measures adopted in the various branches of national economic life;

(c) to elaborate and submit new projects to the Provisional Government and the Economic Council;

(d) to carry out the instructions of the Economic Council;

(e) to coördinate all statistical and technical reports on current industrial life.

The Supreme Economic Committee became the principal authority on all economic questions, and its decisions could be revoked by the Provisional Government alone. Thus, in the Economic Council and the Supreme Economic Committee central executive machinery was created for the direction of all economic policy, and for the regulation of national economic life. This was what the revolutionary parties had demanded. The whole system of local committees of supply, of conferences, and organizations, was now complete.

The Economic Council established on the 21st June 1917 began its work only a month later, on the 21st July. It confined itself almost entirely to hearing and discussing reports submitted by the various departments and institutions. These reports formed the basis of discussion on various questions of economic policy, and the debates resulted in decisions which it was the business of the Supreme Economic Committee to execute.

The debates in the Economic Council, on almost every subject, gave rise to sharp controversy, and as these debates were of a very general and theoretical character, and the practical work was concentrated in the Supreme Committee, the Council gradually lost its importance; the members began to absent themselves, the sittings became rare, and the leading rôle passed to the Committee. The Council completely receded into the background on the formation, in October, of the All-Russian Council of the Republic—the so-called pre-Parliament, in which the economic condition of the country was

discussed among other subjects, as at this period of the Revolution economic policy was involved in all political questions.

Among the new institutions, the Ministry of Labor (formed in May 1917 when the first Coalition Government came to power) played an important part, and had a great influence on economic policy. This influence was due in the first place to the fact that the new Ministry expressed the views, program, and demands of the moderate element in the socialist group, which was very influential in the early days of the Revolution, and whose opinion had to be reckoned with. In the second place this Ministry was required to deal with the labor problem, the full significance of which had not previously been recognized nor its solution previously attempted. The gravity of this problem gave the new Ministry a position of preëminent importance among the numerous institutions connected with the regulation of economic life.

In July 1917 a Central Committee was formed, for the distribution of supplies of labor; it was presided over by the Minister of Labor and included members representing various government departments and public organizations. The Department of Labor Supply of the Ministry of Labor became the executive of the Central Committee. A department was also formed in the Ministry to deal with the relations between employers and employed. As the conflicts in this sphere were very frequent, not to say constant, during the first period of the Revolution, this department assumed the character of a court of arbitration. Its decisions came to have the force of a compulsory enactment regulating the conditions of labor.

By the end of July 1917 the economic policy of the new Government had resulted in a more coherent system of organs of control, in some respects striking out a new line, and in others completing the work begun before the Revolution. But by this time a great change had taken place in economic and social conditions. The disorganization of all industry had attained gigantic proportions, and continued to increase. This made the Government quite impotent in most cases to cope with the elemental forces of dissolution that were attacking the economic life of the country and disintegrating the nation. Most of the measures adopted during the last two or three months of the Provisional Government (July-October) were short-lived; many of them were not even put into practice.

CHAPTER IV

CONTROL AND DISTRIBUTION OF METALS AND METAL GOODS

1. *Regulation of the metal market.*

By the middle of 1917 a sharp fall became apparent in the output of the iron foundries working for the army, and also a crisis on the metal market. In the Moscow industrial district the output of the foundries fell in April to two-thirds that of February. In May and June there was a further decrease. The Minister for Food Supply reported in June at the meeting of the Soviets of Workmen's and Soldiers' Deputies that conditions as regards the supply of iron were highly unsatisfactory throughout the country and especially in the rural districts. The Government, with the coöperation of the unofficial organizations, even had recourse to a collection of old iron. A so-called "Iron day" was organized. Propaganda was conducted in every district to encourage the collection of stocks of iron.

The decrease in output at the Putilov factory (Petrograd) appears from the following table:

	<i>June 1916</i>	<i>June 1917</i>
	<i>(in puds and tons)</i>	
Mild steel	240,185 (3,873)	69,104 (1,114)
Cast steel	357,676 (5,768)	118,325 (1,908)
Pig-iron	70,301 (1,133)	45,279 (730)
Copper	3,385 (54)	1,555 (25)
Steel goods	35,181 (567)	19,553 (315)

In one of the biggest iron foundries of the Donetz Basin the output of pig-iron fell from 1.1 million puds (17,700 tons) in June 1916 to 900,000 puds (14,000 tons) in June 1917, the output of cast-iron from 460,000 (7,400 tons) to 280,000 puds (4,500 tons).

No data are available as to the output, in weight, of specified goods of the metal industry, but judging by the information we have as to the value of the output, we can form an idea of the extent of its decrease. Thus the value of the machinery manufactured, reckoned at the prices of 1913, was as follows:

	1916	1917
	<i>(in millions of rubles and of pounds sterling)</i>	
Total of production	954.6 (100.8)	657.2 (69.26)
<i>Including:</i>		
Rolling-stock and railway materials	175.2 (18.47)	87.5 (9.24)
Ships	3.7 (0.39)	1.7 (0.18)
Electrical machinery	31.6 (33.34)	43.2 (4.57)
Agricultural machinery	3.1 (0.32)	1.9 (0.20)
Special machinery	19.8 (3.16)	11.1 (1.17)
Guns and rifles	682.3 (72.13)	490.1 (51.91)

These figures show a decrease not only in the production of goods for the civil population, but even in those for the army, particularly in arms.

Of 65 blast furnaces in the south, only from 34 to 44 were in use, and even these were not working at full pressure. Of 102 Martin furnaces only 55 were in use in October 1917. The rail-rolling works were only producing at 55 per cent of their capacity. This was the result not only of the revolutionary agitation, but also, as has been said, of the decline in the output of metals. The metal market was completely disorganized, and the results of the unsystematic distribution of metal that had prevailed before the Revolution were now being felt. It was stated in the official paper of the Ministry of Commerce and Industry that in spite of the regulations introduced in 1916 regarding the distribution of metals, no thorough investigation had ever been made into the demand for these and the supply available.

The crisis became so acute that in May 1917, at the All-Russian Congress for Food Supply, it was pointed out that the deficiency of metals was one of the most serious questions of the day, more serious even than that of food supply. "Bread," said the members of the meeting, "is to be had, but iron at the present moment can be had only in insignificant quantities and we cannot expect to receive any more. If drastic steps are not immediately taken, a great and terrible catastrophe will ensue, and the whole industrial life of the country will be suspended."

The struggle against the impending catastrophe was beset with difficulties. The revolutionary ferment had gained the mass of workmen in the metal industry. Workmen's committees were beginning to take a greater part in the management of the works. The demand for higher wages was becoming general and assuming a violent

character. It led to an almost continuous strike. Owing to high wages and heavy taxation the factory-owners were refusing to continue to run their works. Cases of factories and mines being closed down were becoming common.

The Government was confronted with a difficult situation. To take all the metal industry into its own hands, as the socialists in the Soviets demanded, under the conditions of political and economic confusion existing at the moment, was impossible. The further strengthening of State control, and its extension to industries working for the general market, met with opposition from certain groups in the workmen's committees. The great influence exercised by the Soviets of Workmen's and Soldiers' Deputies increased the difficulties by creating a kind of second government and dividing public authority.

Lastly we must bear in mind the difference of opinion that existed within the Provisional Government itself, between its socialist and non-socialist members, with regard to the economic policy to be pursued. It had already led to the resignation of the Minister of Commerce and Industry, who represented the interests of the manufacturers. Thus there was no unanimity among the members of the Government. A decided move in the direction of State management of the iron industry might provoke a sharp opposition on the part of industrialists, on whom the Government mainly relied and whose opinion it was bound to consider.

In these circumstances the only thing to be done was to enforce a more rigorous control over the distribution of the existing resources. On the 6th May 1917 a law was passed providing for the institution of Divisional Commissioners with full powers over the distribution of metals. The divisions were mapped out as follows:

(1) Volga, (2) Caucasus, (3) Kiev, (4) Petrograd, (5) Ural, (6) Center, (7) South, (8) Siberia, (9) Turkestan, (10) Eastern Siberia, (11) Far East.

The Divisional Commissioners were entrusted with the following functions:

- (1) the general supervision of supplies in their respective districts;
- (2) the apportionment of metal among consumers;
- (3) the preparation of draft plans for future supply and distribution;

(4) the encouragement by every means of higher efficiency in production.

Moreover, on the 20th July 1917 the Minister of Commerce and Industry was given the following powers, which he might use subject to the approval of the Ministers of War, Marine, and Transport. He was authorized:

(1) to establish compulsory and stable prices for producers and dealers in metal, metal goods, and iron ore;

(2) to obtain information from producers and dealers bearing on the cost of production of metals, metal goods, ores, etc.;

(3) to issue regulations concerning the supervision of the trade in metal, metal goods, and ores.

At the same time new maximum prices were fixed for all metals and all metal goods, ordered for defense purposes under contracts subsequent to the 1st April 1917.

These measures were nothing more than a confirmation of the powers given to the Minister of Commerce and Industry as early as the beginning of 1916. The regulation of the metal market depended on a more rigorous and judicious distribution of resources. This aim was the object of the law passed on the 20th July 1917, which gave the supervision over the distribution of metals to the Chief Commissioner and his local deputies. Under this law the whole country was divided, in respect of the metal industry, into three principal areas: southern, central, and Ural. The available metal was distributed between these areas in proportion to the demands of the factories.

The Chief Commissioner drew up a monthly schedule, fixing the output of various grades of rolled and cast steel and iron. This schedule was sent to all the government departments and public organizations requiring supplies of metal goods, not later than the first of the month preceding that in which the goods were to be manufactured. All the orders to be given by these departments were to be forwarded to the Chief Commissioner not later than the 10th of the same month, with a statement of the date on which delivery was required. The Chief Commissioner was to communicate these data to his local deputies for each of the three areas. These latter on the strength of the information received, and in consultation with the factory managers, settled on a plan of action for the execution of the orders for the following month.

Only 4 per cent of the output was left for the use of the factory itself, and this was controlled by the government authorities. Six per cent of the production was retained as a reserve stock, which was to be used only in case of some special call; the remaining 90 per cent was available for the factory's customers. The distribution of metal among the customers (only the government departments and the unofficial organizations working for the army might legally be customers of the metal industry) was controlled mainly by the Chief Commissioner for the Supply of Metal. Every department and organization was allotted a monthly quota for not more than three months in advance.

Under this system the distribution of metal was based on much the same principles as that of metal and coal before the Revolution. At most, the new rules provided for a slightly closer and more rigorous supervision. But the law of the 20th July 1917 (and the same may be said of most of the measures adopted after the Revolution) was applied only with great difficulty, and had but very little influence on existing conditions.

2. Control of distribution of metals and production of agricultural machinery.

The great deficiency of metals and the difficulty of combating the disorganization of the metal market forced the Provisional Government to make a direct attempt to supply the population with metals. Before the Revolution this question fell within the province of the Minister of Agriculture.

As soon as war broke out, the production of agricultural machinery and implements entered a critical period. Owing to the decline in imports, the price of ploughs rose by 60 or 80 per cent, and the home production decreased by 70 per cent in the great iron works. It is true that the decrease of imports forced the Russian factories to adopt more judicious methods. A series of inquiries was set on foot, with the concurrence of the Department of Agriculture, to investigate the resources of the home industry that might compensate for the absence of foreign importation. A plan was worked out for standardizing the different types of machinery and simplifying them, and certainly much was done to encourage the manufacture of scythes.

Towards September 1915, however, the output of 34 of the largest iron works had fallen to 40 per cent below normal. The works the value of whose output before the War had been 23 million rubles (£2,400,000) were now producing only to the value of 5 million rubles. The representatives of the manufacturers of agricultural machinery began to insist on the Government taking steps to save them, as the too general application of the watchword "All for the War" had seriously injured this essentially peaceful industry. On the 6th December 1915 the law allowing the temporary exemption from military service of certain workmen was applied to those working in factories producing agricultural machinery and implements. It was only on the 17th January 1916 that the Metal Committee for the metal industry recognized the importance of the production of agricultural machinery and passed a resolution allotting it 4 million puds (64,000 tons) of cast-iron, steel, and pig-iron. But like most of the economic measures taken by the old Government during the War, it came rather too late.

By that time the reserves of metal had greatly diminished. There had been no real registration of metals, nor of the demand for them. The distribution was effected by a proportionate allotment of the available quantity, and consequently the amount distributed was much below the real needs. Normally the works manufacturing agricultural machinery employed from 13 to 15 million puds (205,000 to 225,000 tons) of metal annually. In 1916 they received 4 million puds or 20 to 25 per cent of the amount required. But even this small allotment did not all reach its destination. As generally happened, the permits issued by the Metal Committee remained unexecuted: the factories received only about 1.3 million puds (20,000 tons).

This was due to the extreme scarcity of metals, which began to be felt in 1916, and against which all the permits of the Metal Committee were ineffective. About this time the work in the iron foundries was no longer carried on at the same high pressure. Many furnaces were idle. The foundries were in a chronic state of arrears. And as they were bound to satisfy first of all the demands of the army, the deficiency of metal for military purposes was systematically covered by taking the part allotted to other machinery works and in particular to the makers of agricultural machinery. These were forced to have recourse to the ordinary market, where the profiteers reigned

supreme. The prices of metals were continually rising, the cost of production also, and agricultural implements were becoming too costly for the peasants to buy.

The Government endeavored to help the sale of machinery by regulating transportation. In May 1916, certain implements (ploughs and harrows) were admitted to the category of goods entitled to priority of transport immediately after army supplies. Besides this a certain number of trucks were detailed for the conveyance of agricultural implements and were not to be used for any other purpose.

By a series of analogous regulations, the factories manufacturing agricultural implements were placed on the same footing as those making munitions, but this was done in 1916 when the decline in the output of raw materials and the decrease in production had become too great for administrative measures to have any appreciable effect.

The measures taken for supplying agriculture with the necessary implements having, as stated above, proved ineffective, the Ministry of Agriculture gave every encouragement to private initiative in the matter of the collective purchase of agricultural machinery abroad. With this object, a special board was formed of members of the Central Zemstvos Coöperative Committee, on which the Ministry of Agriculture was also represented. The purchase of machinery abroad during the War was a very costly operation, and the Minister of Agriculture, therefore, rendered assistance by an advance of 6 million rubles.

The whole year 1916 passed in these efforts to meet the needs of agriculture. Nevertheless by the beginning of 1917 the rural districts were threatened with a machinery famine. The activity of the coöperative purchasing societies in providing machinery from abroad began to give beneficial results only towards the middle of 1917. The quantity of machinery imported increased considerably. During the first eight months of 1915 only 120,500 puds (1,940 tons) had been imported; during the same period of 1916, 481,000 puds (7,700 tons) were imported; and in 1917, 1,285,700 puds (20,700 tons). But the output of Russian factories had fallen to an extremely low level. In 1917, the agricultural machinery works had received orders for one million parts of different kinds of implements; in the spring only 15,000 were delivered. In the autumn all the machinery made did not exceed 20 per cent of the orders.

As it was obvious that under these conditions the supply of agricultural implements to the population could not be carried on by means of ordinary trade, the Minister of Agriculture began to have recourse to a direct distribution of metal to the population. This practice, started in a small way before the Revolution, was greatly extended after March 1917. This is shown by the following table:

AMOUNT OF METAL DISTRIBUTED TO THE RURAL POPULATION

	<i>(In puds and tons)</i>		
	<i>Total</i>	<i>For the manufacture of agricultural machinery</i>	<i>For the needs of the farmers</i>
From 1 Feb. 1916 to Oct. 1916	1,162,837 (18,754)	869,580 (14,025)	293,257 (4,729)
From 1 Oct. 1916 to Jan. 1917	1,320,040 (21,290)	993,580 (16,025)	326,460 (5,265)
From 1 Jan. 1917 to Mar. 1917	194,800 (3,141)	194,800 (3,141)	
From 1 Mar. 1917 to Oct. 1917	4,671,726 (75,350)	1,402,840 (22,626)	3,268,886 (52,724)
	7,349,403 (118,535)	3,460,800 (55,817)	3,888,603 (62,718)

Thus two-thirds of the whole quantity of metal distributed during the War by the Government was distributed after March 1917. It is to be noted also that while the quantity of metals given out after the Revolution for the manufacture of agricultural machinery was only 41 per cent of all the metal allotted for this purpose, the quantity received directly by the population during the same period (1st March to 1st October 1917) was four-fifths of the total so distributed in the course of the War.

3. State monopoly of agricultural machinery.

After the Revolution of March 1917 the policy of supplying the population with agricultural implements was considerably extended, owing to the institution in the new Ministry of Food Supply of a special department of supplies, charged with the task of furnishing agriculture with all necessary implements. It also undertook the supply of raw material to the factories, the distribution of orders among them, the supervision of production, etc.

By a gradual succession of measures the Ministry of Food Supply worked towards the introduction of a State monopoly of agricultural machinery. At the end of April 1917, on the initiative of the Government, an All-Russian Congress of Manufacturers of Agricultural Machinery was summoned, which worked out the following scheme of organization for the industry.

(1) The State was to undertake the ordering and the purchase of all agricultural machinery, already made or to be made, in order to guarantee the supply of cereals required by the country and the army. All the agricultural machinery to be produced, as well as such as already existed, was to be considered as belonging to the State, and the distribution of it was to be officially controlled.

(2) The State was to organize the production of agricultural machinery and tools by mobilizing the industry and placing the factories on the same footing as those working for the army.

(3) A State organ controlling the orders for agricultural machinery and implements was to distribute the orders between the factories according to the nature and extent of their technical capacity.

(4) The State was to secure that the factories were supplied without interruption with raw materials, fuel, and all requisites, giving

every assistance to the industry to enable it to attain a higher rate of production.

(5) An estimate was to be drawn up in the near future of the proposed production of agricultural implements up to September 1917, and similarly for 1917 and 1918, and of all materials and fuel necessary for the purpose. The Provisional Government was to give its attention to the timely supply of fuel to the works, for without fuel the supply of metals alone was of little use.

The manufacturers themselves had been forced to insist on the State taking into its hands the production as well as the distribution of machinery. The chaotic conditions that had prevailed up to this time in the distribution of machinery, the competition between the various government departments, the absence of any definite plan or system, the confusion of the constantly changing rules, the very small practical results hitherto attained, all contributed to influence the manufacturers in this direction and made them prefer a State monopoly to the prevailing disorder.

The resolution adopted by the conference of manufacturers was on this occasion in accordance with the demands put forward in democratic circles. At the conference on the problem of food supply, which took place at the end of May 1917, they drew up a special report on the distribution of agricultural machinery and proposed the following measures in this connection: "Instead of leaving production and distribution," said the report, "to the play of rival forces and of private interests, it is imperative that they should be subjected to systematic regulation. The problem of the production of machinery cannot be left to independent private initiative. It is absolutely necessary (1) to institute a real control over the industry; (2) to register all machinery and implements; this duty should be entrusted to special inspectors sent out by a central body, in which the supervision of the whole of this industry could be concentrated; (3) to examine the question of reducing all agricultural machinery to a few standard types, recommended by specialists as the most desirable."

The Provisional Government, however, represented by the Minister of Food Supply, did not go the length proposed by the manufacturers. It began by concentrating its attention mainly on regulating the trade, and left on one side, for the moment, the question of State monopoly of the industry.

The first step taken by the Ministry in this, as in other similar cases, was to endeavor to regulate prices, and to do away with middlemen. The provisional regulations published on the 17th June 1917 were intended to achieve these two fundamental objects. They constituted an attempt to bring order into the trade and distribution, and to introduce a certain system on the market. They laid down that factories were to place their goods on the market only by permission of the Department of Supplies or its local agent—the provincial committee acting on orders received from the Department. All the factories were obliged (1) to submit a list of sales, stating the conditions of each sale; (2) to submit every fortnight a statement of the machinery they had on hand. Every sale had to be ratified by the Department of Supplies. If the sale was not ratified, the machinery was to be registered by the provincial committee, which then distributed it in accordance with directions given by the Department, through the agency of the *zemstvos*, of the coöperative societies or of their unions.

Moreover, the Department of Supplies was to establish the maximum prices of all agricultural machinery and implements: (1) all the machinery made in Russia was to be sold at the prices of 1913-1914 with an addition of 125 per cent; (2) for machinery made abroad an addition of 150 per cent to the prices of 1913-1914 was allowed; (3) for machinery made by cottage industry, and for implements included in price lists, prices were to be fixed by the provincial committees. The sale of spare parts of machinery was left free, but the prices were limited to 60 per cent above those of 1913-1914.

But no sooner had the regulations been published, than their two main features (the control of prices and of distribution) became the object of severe criticism. Like most of the measures of the economic policy of the Provisional Government, the regulations of the 17th June 1917 were criticized from two opposite points of view—by the manufacturers on the one hand and by the democratic groups on the other, although they had chiefly been devised under the influence of the latter.

The *zemstvo* coöperative societies found the new prices much too high, and consequently beyond the reach of the peasants. On the other hand the manufacturers thought the prices so low that the closing down of most of the factories must inevitably ensue. The great difficulty was that both were right.

The serious decline in the value of the ruble, which by the middle of 1917 had fallen to one-third or one-fourth of its par value, and the great rise in the prices of metals, timber, fuel, and labor, had increased the cost of production to such an extent that the addition of 125 and 150 per cent on the pre-war prices was not sufficient. On the other hand, the prices fixed for grain remained low, as public opinion was almost unanimous against any increase in these. The new prices of breadstuffs introduced by the Provisional Government, though slightly higher than those of the pre-Revolutionary period, were not in proportion to the high prices of agricultural machinery. The peasants refused to sell their grain at a price which did not correspond to the cost of their implements, and at the same time the price of machinery was not high enough to encourage the industry, or even to maintain it at its previous level.

The registration and distribution of machinery was, moreover, effected in a very unsatisfactory manner, as the committees for food supply were not equipped for the work. During the autumn of 1917 they dealt with no more than seven provinces, and registered only 15,000 pieces of machinery, or about 1 per cent of the annual demand.

At the second All-Russian Congress, which took place on the 6th-8th August 1917, the manufacturers expressed the opinion that different committees for food supply interpreted the regulations in different ways, which lowered them in public estimation; while many organizations that had nothing to do with food supply applied these rules in yet other ways. In some cases the committees requisitioned machinery at prices below those fixed by the regulations of the 17th June, in others the machinery was taken possession of without any receipts being given; in yet other cases machinery was registered, but allowed to remain unused during long periods. This confusion disorganized the sale of machinery and ruined both manufacturer and peasant.

Taking all this into consideration the congress adopted a resolution to the effect that "the regulations of the 17th June were equivalent to the confiscation of the property of the manufacturers of agricultural machinery. This fundamentally unjustifiable measure violated the rights of a certain group of citizens." They expressed the hope that "the Government will immediately repeal the tem-

porary rules and find means of compensating the firms that have suffered by their application."

But, of course, the repeal of the regulations was impossible. It would have meant a return to the system that had prevailed before June 1917, the inefficiency of which had been manifest during the whole course of the War. On the other hand, it was equally impossible to maintain the régime created by these rules, as in view of the position taken by the manufacturers it was evident that a simple registration of stock and regulation of prices would be of no avail. There remained but one way out of this dilemma—to make the industry a State monopoly. This was effected by a declaration of the Department of Supplies dated the 21st August 1917, in which it announced that it would take into its own hands the supply of agricultural machinery in 1918 and the supply of metal necessary for this purpose. At the same time (22nd August) the prices were raised 75 to 125 per cent.

But the new prices did not remove the cause of complaint. The factory-owners still found them too low, as compared with the cost of production, which during the last two months had risen more than the addition would cover. For the peasants they were still too high, as the price of grain had risen only 100 per cent.

Having undertaken the distribution of agricultural machinery, the Ministry for Food Supply endeavored to institute the regulation of the use of machinery by the so-called "compulsory employment of agricultural machinery." Under the regulations published on the 26th July 1917 with this object in view, when machinery or implements were not utilized to the best advantage by the owners, on their own or other persons' land, the local committee for food supply had the right of "compulsory additional utilization." The fact that implements were not being fully utilized by the owners was to be registered by the local agents of the committee. Special officers were to be appointed to secure the full utilization of machinery and the remuneration of the owners. But these regulations of the 26th July were never put into force. The committees were unable to cope with these new duties. The project was too difficult of execution, and out of harmony with the spirit of the population, which gave no assistance in carrying it out, but rather met it with passive opposition.

The State monopoly of the supply and sale of agricultural ma-

chinery was introduced only at the end of August. By that time economic and administrative confusion had reached its climax. The agricultural year was coming to an end, and the regulations of the 21st August were intended to apply mainly to the ensuing year; but the fall of the Provisional Government was at hand. Two months later it was overthrown without having brought them into force.

Machinery for the autumn agricultural campaign could be supplied only on a very small scale, as compared with the usual pre-war demand. This appears from the following figures.

	<i>Production in 1913</i>	<i>Proposed production 1917-1918</i>
Ploughs	830,000	535,000
Seed drills	59,000	25,000
Reaping machines	80,000	50,000

Thus the proposed production for 1917-1918 would have supplied machinery at the rate of 40 to 70 per cent of the pre-war demand. In reality only 15 per cent of the orders were executed, which amounted to 8 per cent of pre-war production. But most of this machinery was delivered in the winter of 1917-1918, when after the Bolshevik Revolution of 26th October (7th November 1917) a new policy and new conditions were tending to bring about the further disorganization of economic life in Russia.

CHAPTER V

STATE MONOPOLY OF THE COAL TRADE

THE situation as regards fuel supply became menacing in 1917, and this in spite of the fact that the output at the beginning of the year cannot be said to have decreased to any serious extent. During the first four months of 1917 the output of coal in the Donetz Basin had even shown an increase of 70 million puds (1,130,000 tons) over the first four months of 1916. The sharp decline began in May, but even then the decrease for the first eight months of 1917 amounted to only 15 million puds (240,000 tons) as compared with the same period in 1916.¹ This appears from the following table:

OUTPUT OF COAL IN THE DONETZ BASIN

(Millions of puds and of tons)

	1916	1917
January	150.0 (2.41)	154.1 (2.48)
February	149.0 (2.40)	143.4 (2.31)
March	104.2 (1.68)	150.0 (2.42)
April	95.0 (1.53)	121.0 (1.95)
May	140.0 (2.25)	127.5 (2.05)
June	147.2 (2.37)	127.0 (2.04)
July	144.0 (2.32)	119.0 (1.92)
August	137.0 (2.21)	110.0 (1.77)
Total	1,066.4 (17.17)	1,052.0 (16.94)

In the output of petroleum for the first five months of 1917 there was an increase of 16 million puds (258,800 tons).² The output in Baku was as follows:

(Millions of puds and thousands of tons)

	1916	1917
January	27.3 (440)	33.3 (537)
February	25.3 (408)	28.7 (462)
March	27.1 (437)	31.5 (508)
April	26.6 (429)	32.0 (516)
May	35.3 (569)	32.2 (519)
Total	141.6 (2,283)	157.7 (2,542)

¹ See Appendix XXIX.

² See Appendix XXXII.

At the same time the number of hands employed in the collieries of the Donetz Basin had considerably increased. But though the output was greater than in 1916, it fell much below that of pre-war times. The output of coal in the south for the first eight months of 1917, as we have seen, came to a little over 1,000 million puds (16,000,000 tons), while for the same period in 1914 it had been 1,125 million puds (18,000,000 tons). The deficit in the Donetz Basin alone reached 73 million puds (1,200,000 tons). In 1916 it had been only 58.5 million puds (940,000 tons). The output of petroleum in Baku had fallen to 158 million puds (2,500,000 tons) for five months as against 170 million puds (2,700,000 tons) in 1913, making a deficit for Baku alone of 12 million puds (190,000 tons).

Thus the aggregate deficit in fuel for the whole of Russia was considerable. But there were two other causes that contributed to produce the crisis in fuel. The productiveness of labor in the mines of the Donetz Basin had experienced an abrupt decline, and this was a very dangerous symptom. The number of workmen in the Donetz mines and their productivity per head in 1916 and in 1917 are shown in the following table:³

	<i>Number of hands employed</i>		<i>Monthly average output per head (in puds and tons)</i>	
	<i>1916</i>	<i>1917</i>	<i>1916</i>	<i>1917</i>
January	208,000	291,000	711 (11.4)	529 (8.5)
February	219,000	292,000	680 (10.9)	492 (7.9)
March	220,000	284,000	474 (7.6)	529 (8.5)
April	217,000	286,000	438 (7.0)	423 (6.8)
May	220,000	276,000	636 (10.2)	462 (7.4)
June	222,000	278,000	663 (10.6)	457 (7.3)
July	232,000	274,000	621 (10.0)	434 (7.0)
August	242,000	268,000	566 (9.1)	410 (6.6)

In August 1917 output per head had fallen 20 per cent below that of January 1917, 27 per cent below that of August 1916, and 42 per cent below that of January 1916. This decline in output per head had a progressive tendency, and hope of reviving the normal efficiency of labor was waning. This prospective further decline of working capacity foreboded a still further decrease in the supply of fuel.

³ See Appendix XXX.

But a still more serious cause of the crisis in fuel supply was that the railways could not bring away all the coal produced from the Donetz Basin, and the inefficiency of the railway service was likewise on the increase. In 1915 (first eight months) the amount of coal immobilized at the collieries out of the amount extracted during that period was 173 million puds (2,790,000 tons) ; in 1916 for the same period it was 113 million puds (1,820,000 tons) ; and in 1917 it was 227 million puds (3,660,000 tons). In 1916 the average quantity of coal transported during the first eight months remained approximately the same and varied scarcely from month to month, but in 1917, beginning with the month of May, it declined rapidly.⁴ The figures of the coal transported from the Donetz Basin are as follows:

(Millions of puds and of tons)

	1916	1917
January	112 (1.81)	109 (1.76)
February	107 (1.73)	89 (1.44)
March	120 (1.94)	103 (1.62)
April	110 (1.77)	106 (1.71)
May	122 (1.97)	90 (1.45)
June	119 (1.92)	99 (1.59)
July	123 (1.98)	97 (1.56)
August	119 (1.92)	80 (1.29)
Total	932 (15.04)	773 (12.42)

It is true that the sharp decline in the transport of coal in May 1917 was partly due to the decreased output. But during the first three months of 1917 a great quantity of coal prepared for transport was not brought away. The amount fixed for delivery was 530 million puds (8,540,000 tons), but of these only 301 million puds (4,850,000 tons) could be transported, and 229 million puds remained at the pitheads. The main cause of this was the shortage of rolling-stock. Because of this, 114 million puds (1,940,000 tons) remained untransported during the first three months of 1917. The coal accumulated at the railway stations reached 40.6 per cent of the quantity consigned on the Ekaterininsky line, 36.3 per cent on the South Eastern railway, 8.7 per cent on the Southern lines, and 48.6 per cent on the North Donetz line.

⁴ See Appendix XXIX.

Towards the beginning of August 1917 the aspect of the fuel problem for the ensuing winter became very threatening. The railways were in an especially critical position; the quota of fuel allotted to them was continually diminishing, in favor of other consumers. The amount of coal to be delivered during the period March-August 1917 to the different categories of consumers according to the quota fixed by the Special Council for Fuel is shown in the following table:

(In millions of puds and thousands of tons)

	<i>Iron foundries</i>	<i>Sugar factories</i>	<i>Petrograd region</i>	<i>Moscow region</i>
March	22 (355)	0.8 (13)	3.1 (50)	1.4 (22)
April	26 (419)	3.2 (52)	4.6 (74)	3.2 (52)
May	20 (322)	1.3 (21)	3.3 (53)	1.3 (21)
June	22 (355)	1.7 (27)	3.9 (63)	1.7 (27)
July	21 (339)	2.5 (40)	3.9 (63)	1.9 (31)
August	21 (339)	2.8 (45)	3.7 (59)	2.0 (32)

Meanwhile the amount of fuel assigned to the railways was diminishing every month.

Amount received
(Millions of puds and
thousands of tons)

Percentage of demand

March	58 (935)	58
April	44 (709)	42
May	46 (742)	52
June	45 (727)	44
July	40 (645)	42
August	35 (564)	42

On the 1st September 1917 the reserve of fuel on the railways did not exceed 22 million puds (335,000 tons), whereas the consumption for the ensuing month was estimated at 43 million puds (694,000 tons). As the Special Council according to its scheme of distribution allowed only 33 million puds of coal to the railways, the stock in hand on the 1st October would have run down to 12 million puds (194,000 tons). An interruption of the service of the most important railways of the central provinces (which depended almost exclusively on Donetz coal), was probably in October.

The attention of the Government was directed mainly to procur-

ing a supply of other kinds of fuel, in particular of wood. For this purpose a special body was formed in March 1917, the *Tsentroless* (Wood Center). It was to unite all the public organizations engaged in assisting the railways to supply wood. It was proposed to provide 2.4 million cubic sakhines (823.2 million cubic feet) of wood in 1917. But difficulties arose. The Central Committee not being prepared for the campaign could not furnish the necessary amount of labor. Further complications arose in connection with the policy to be pursued in regard to privately-owned forests, for many of the land committees formed since the Revolution insisted on their nationalization. All this greatly impeded the work and not more than 2 million cubic sakhines could be expected to be ready for the winter.

The petroleum supply was in no better condition. The transport of petroleum on the Volga was hampered by the shortage in floating craft, and by August 1917 23 million puds (371,000 tons) were left unshipped at Baku. Thus a great shortage of supply was to be apprehended for the following year. It was already beginning to be felt in August 1917.

This discouraging outlook in the matter of fuel produced its natural effects—an excessive rise in prices, regardless of those fixed by the Government; difficulty in procuring fuel for the consumers most in need of it; irregular distribution, etc. The Government took measures to regulate the distribution of coal, but in theory the trade remained free. This was an obvious anomaly. In order to supply the consumers most in need of coal, the Special Council had recourse to requisitions, but was frequently unable to procure any. The requisitions became more frequent,⁵ as the difficulty of obtaining fuel became greater. But no amount of requisitioning could assure the supply of all the fuel needed. The question was how to distribute the small stock of coal to the best advantage, so as both to supply the manufacture of military supplies and to maintain the railway service.

⁵ At first, up to the beginning of 1916, the amount of requisitioned coal did not exceed 3 to 4 million puds a month. But from the spring of that year, the average monthly requisition of fuel rose to about 45 million puds, and about 50 per cent of the mines were subject to it. Out of the total requisitioned, about 35 million puds went to the railways, about 7 millions to shipping and to waterworks, and the remainder in exceptional cases went to factories of the first three categories.

We have seen that all the measures previously adopted with regard to fuel were necessarily leading up to a State monopoly of the coal trade. This was so obvious that the mine-owners had endeavored to form a central regulating board, the *Tsentrougol*, of which mention has been made in a previous chapter. But in 1917, after the Revolution, the Government could not longer rest content with this effort by the mine-owners themselves to solve the problem.

Here as elsewhere new and potent factors came to influence the policy of the Government. The Revolution was followed by a great strike movement throughout the country. The miners of the Donetz Basin joined the movement. Ever since the outbreak of the War, strikes had been prohibited by the Government. Most of the factories engaged on war work were under martial law. The workmen were either released from conscription to work at the factories, or were skilled workmen returned from the front and were considered as soldiers. The Government had an effective means of preventing strikes—by sending the refractory elements off to the trenches.

Besides many of the factories were under the control of the military, not of the civil, authorities. So that when the Government decided not to tolerate strikes, any attempt to organize one was put down with all the severity of which the Russian military authorities were capable. As has been said in Part I of this work, wages had greatly increased in face value during the War, but as the cost of living had also risen, the real value of wages remained rather low, and in some cases had even fallen below the pre-war level. At the same time the War had created very favorable conditions for speculation, and for the rapid acquisition of large fortunes by persons of the most diverse classes. Working hours had been considerably lengthened. And although overtime work, which was widely resorted to, increased the workmen's earnings, the working class, which now consisted largely of women and children, was physically in a state of complete exhaustion.

Demands for higher wages were constantly reiterated in the course of 1916. But the working classes had no possibility of pressing their claims by strikes; these claims were satisfied in a few cases, either owing to the intervention of the labor groups or war industries committees, or at the instance of the military authorities, who were anxious to maintain production in the factories working for the army. Thus when the Revolution broke out a mass of inflammable

material had accumulated; after March 1917 it burst into a general conflagration and strikes swept over the whole country. The conflicts between employers and employed in the Donetz Basin began immediately on the outbreak of the Revolution. Unwilling to allow this movement to take the form of an officially proclaimed general strike, the Provisional Government allowed the workmen's committees a wide margin of freedom, and the management of industrial enterprises practically passed into their hands. The miners insisted on a collective contract, but the conditions they proposed were declared by the employers to be unacceptable. It was chiefly the rate of wages that was thought inadmissible. The employers declared that they could agree to the proposed rise in wages only on condition of the Government's agreeing to raise the price of coal and to subsidize the mines. The workmen for their part asserted that an increase in wages did not necessarily entail a rise of prices, as the high profits that the owners had been making during the War might fairly now be reduced in favor of labor. The Government on the other hand would neither consent to raise the prices, nor grant any considerable subsidy, giving as a reason for refusal the difficult situation of the Treasury, which was already incurring a heavy outlay on coal for the munitions factories and for the railways.

To settle the dispute between the employers and employed a Board of Arbitration was formed in the Ministry of Labor. Each of three parties endeavored to prove its case. The competence of the Board of Arbitration was before long widened. It was charged with the duty of investigating all the circumstances of the mining industry, including labor conditions, the financial status of the individual mine collieries, their technical capacity, the conditions of sale and transport, and the prices of coal and of materials required by the mines. In other words, the Board had to make a thorough investigation of the whole situation of the coal industry.

Thus the consideration of the labor question had led to the necessity of examining afresh the whole problem of fuel supply. This problem was twofold: there was first the problem of increasing the output, which since May 1917 had shown a sharp decline, and secondly that of distributing in the most advantageous manner the small stock of fuel available.

The Provisional Government tried at first to solve this second problem by a stricter control of the distribution. A law dated the

8th April 1917 instituted the office of Chief Commissioner for the petroleum industry at Baku. The duties of the Chief Commissioner were:

(1) to ascertain the actual quantity of the existing stock of petroleum in all its forms;

(2) to keep a record of the output;

(3) to enforce the observance of all the regulations laid down by the Special Council for Fuel;

(4) to distribute to the different firms the orders for supply of oil to the munitions factories;

(5) to assure the regular transport of petroleum from Baku to the interior provinces;

(6) to see that the boats employed for the carriage of petroleum were utilized to the best advantage;

(7) to arrange for the transport of petroleum on a general coherent scheme.

The Provisional Government attempted also to regulate the requisitions of Donetz coal. The law of the 16th March 1917 required the consignor to submit to the representative of the Chief Commissioner:

(1) a certificate from the inspector of the Donetz Basin that at the moment of requisition the designated kind of coal existed at the stores or mine of the consignor;

(2) the documents on the strength of which the requisition was effected and the coal delivered to the original consignee, with a description of all the kinds of coal delivered.

One of the most important steps taken was the regulation of preferential orders, which had been adopted before the Revolution. The system of preferential orders for fuel was introduced at first for coal, and only for Donetz coal, but later on it was extended to the Moscow and Ural mining districts, and also to petroleum. But it was after all founded on the principle of freedom of commerce, which was now no longer in accordance with the economic policy of the day.

By the law of 9th May 1917 this system was replaced by a scheme of compulsory orders, which was extended to all mining districts and to petroleum. The following procedure was now prescribed for the issue of orders for coal. A prospective purchaser presented a declaration of his requirements to the local commissioner, wherein were stated his reasons for having recourse to this procedure. The local

commissioner sent this declaration to the Chief Commissioner with whom rested the final decision. On the receipt of the authorization of the Chief Commissioner, the local commissioner, who was kept informed by monthly reports of the quantity and quality of coal at each pit, decided which of them was to furnish the required quantity and kind, and issued an order for compulsory delivery. The order indicated from what category of orders registered by the colliery the present consignment was to be deducted. The compulsory orders were, however, executed in the ordinary sequence of orders received.

For petroleum the following rules were prescribed. A consumer having received a permit for the purchase of liquid fuel, but unable to get it by private agreement, was to present a declaration to the local commissioner. In this declaration he was to state to what firms he had applied for the proposed purchase, the result of the negotiations, and the names of his previous purveyors. The declaration was also to indicate the exact quantity and quality required, and the date at which delivery was desired. The authority for a compulsory order was given by the Chief Commissioner. The quantity of fuel allowed by compulsory orders to any one consumer might not exceed the amount allotted to him in the distribution list. Having received authority to issue the compulsory order, the agent designated one or several firms who could supply the quantity demanded, either from the free reserve, or from the petroleum that they had sold in advance to consumers in excess of the annual quantity to which they were entitled. Petroleum obtained on compulsory order was paid for at prices not lower than those fixed for cases of requisition, or, if lower, only with the consent of the parties concerned.

The previous Government had practised a system of liberal advances to mine-owners who had insufficient capital. But this practice was severely attacked by the workmen, who considered that it placed the owners in too favorable a position, and left them without inducement to increase their output. This led to a stricter control over the system of loans. But the control of loans involved also the control of the working of the subsidized colliery.

Under the law of the 14th May 1917, if application was made for a loan, the Divisional Inspector was required to verify the amount of wages due to the workmen and employees. If authority for a loan was granted, all payments were thenceforth to be made, in accord-

ance with the pay lists, by a person specially nominated for this purpose by the Chief Commissioner for Fuel; the payments were to be certified by the signature of the manager of the colliery, and by representatives of the workmen and employees.

Control was then exercised over the use to which the borrowed capital was put. But all these measures were regarded as temporary and were intended to be replaced by others of a more permanent character, when a general system of distribution of fuel had been arrived at. They aimed partly at increasing the output, and partly at controlling the distribution of fuel on the market.

As we have stated, the revolutionary parties insisted from the outset on the transfer of all the fuel industries into the hands of the Government. When in May 1917 the problem of fuel supply grew menacing, this demand became still more insistent. The continual disputes between employers and employed forced the Provisional Government to contemplate the introduction of some form of State control. By substituting the State for private owners they hoped to eliminate one of the causes of conflict—the workmen's conviction that the owners were making excessive profits. It was, however, doubtful whether the transfer of ownership to the Government would increase the output of fuel, first because of the Government's financial embarrassment, and secondly because of the difficulty it would have in dealing with the organs of labor control that had *de facto* sprung up into these industries. The Provisional Government, therefore, decided on the introduction of a State monopoly of fuel. It was hoped that a monopoly of the trade would remove the existing abuses in distribution, would abolish profiteering, would put an end to the excessive rise of prices on the open market, and that the State might augment the reserves of fuel by regulating distribution and by a more rational exploitation not only of the Donetz coal mines, but also of the oil fields, and especially of the forests.

The establishment of a State monopoly of the fuel trade was decided on as early as May 1917. On 24th June 1917 the President of the Special Council for Fuel received the following powers. He was authorized:

- (1) to declare that all sales of fuel were the exclusive monopoly of the State, which alone had the right of distributing it according to fixed rules;

- (2) to fix the date at which this measure should come into force;
- (3) to fix the price at which the State was to acquire the fuel from the owners, and the price of sale to consumers.

At the same time that these measures were promulgated, the Government declared its intention of introducing a State monopoly of the coal trade in the Donetz district. After long debates in the Special Council and the Central War Industries Committee over this question, the monopoly of the Donetz coal was at length introduced on the 16th July 1917.

The monopoly was constituted on the following lines.⁶ The sale of Donetz coal was declared to be the exclusive monopoly of the Government, and all private sales or contracts of sale were prohibited. As has already been mentioned in a preceding part of this work (Part III, Chapter III),—the constitution of the Special Council gave it the right to take over stocks of fuel, and, therefore, the new regulation only served to put into practice one of the clauses of the instructions of 9th May 1916. All the Donetz coal thus came into the hands of the State, and was at the disposal of the Government's representative—the Chief Commissioner of the Special Council in Kharkov. All the coal with the exception of that needed for the working of the mines, and of that which was carted away by horses, was to be distributed by this official. A further exception was made for coal used for making coke and briquettes by the owner of the pit, or by other persons at his order, as well as coke for his own consumption obtained from distilleries attached to metallurgical works. The coal was to be taken over by the Chief Commissioner ready loaded at the railway stations or at appointed places of storage.

The State was to be paid by the consumers at the prices fixed by the President of the Special Council. The coal was to be sold only to persons having certificates from the district commissioner, or from the Chief Commissioner, or from the President of the Special Council. Permits for the purchase of coal for iron works, private railways, and shipping companies might be given by the Chief Commissioner to persons charged by these with the purchase of coal for their use.

State consumers, *i.e.*, State railways and the navy, received fuel

⁶ See Appendix V, regulations of 16th July 1917, for State monopoly of trade in hard mineral fuel of the Donetz Basin.

on a fixed scale. In these cases permits were given, within the limits of the quantity allowed to each, to persons charged with the purchase for the State. The permits were issued for a period of not less than three months. Fuel might be sold to consumers only within the amount and of the quality specified in the permit, and at the place and time designated in it. Consumers on receipt of a permit were obliged immediately to inform the local agent of the details of the purchase. If the transaction was not completed within a month from the date of the issue of the permit, notice to that effect was to be given, and a new permit applied for. The Chief Commissioner might declare a transaction invalid, if it was concluded with a mine from which transport was for any reason impossible.

The expenses of the coal monopoly, as well as all expenditure connected with loans or subsidies to collieries under technical disadvantages, were to be covered by a 3 per cent discount on all sales in favor of the State. A committee attached to the Special Council for fuel was formed to investigate the question of cost of production and the regulation of prices. The committee consisted of a chairman nominated by the President of the Special Council, three members elected by the mine-owners, and two members appointed respectively by the Senate of the Mining School of Ekaterinoslav and the Engineering Society of Kharkov. Moreover, a committee of seven members, nominated by the mine-owners, was formed to recommend mines which, owing to specially unfavorable technical conditions, had a claim in the matter of subsidies.

For the settlement of any disputes that might arise between producers and consumers on the one hand, and the Government on the other, a committee of arbitration was formed in Kharkov, consisting of a chairman nominated by the Minister of Justice, one member by the President of the Special Council from among the consumers of Donetz coal, and one nominated by the Permanent Council of the Congress of Mine-owners of the South of Russia. For the settlement of local disputes, local committees of arbitration were formed. Lastly, for the settlement of all commercial questions which might arise in connection with the monopoly, the Chief Commissioner had attached to him an advisory board, consisting of mine-owners and of representatives of the State-owned and private railways, of the Central War Industries Committee, and of the Unions of the Towns

and Zemstvos. The general supervision of extraction and loading and the collection of necessary information were entrusted to the inspector of the Donetz Basin. The Monopoly Act provided for State subsidies to the collieries, at 6½ per cent interest, of sums not exceeding 50 per cent of the value of orders received for the ensuing month. The collieries might also claim from the purchaser up to 25 per cent in advance of the value of orders received for the ensuing three months.

As we see from the above, the introduction of the monopoly did not entail any serious alterations in the practice of distribution and supply of coal, as compared with the state of things previous to the Revolution. Before the introduction of the monopoly private purchases without the permission of the Special Council had already been forbidden, and in theory all the distribution was directed by the State, as the permits for the sale and transport of coal and the assignment of the quota to each category of consumers rested with the Government. The regulations of 1916 had invested the Special Council with the right of declaring fuel State property; the Council had not availed itself of this right before August 1917. The law did what the Special Council might have done of its own authority, and this was the one novelty introduced by the new act. But the monopoly related only to Donetz coal. It did not apply to other kinds of fuel, such as petroleum and wood, or even to coal from other mining districts.

It is evident that in passing this law, the contents of which we have summarized above, the State had no fiscal ends in view. It certainly did not expect to derive any profit from the monopoly. On the contrary it proposed to give financial aid to the industry. The aims it was pursuing were purely social and political. In adopting this measure, the Government was directly influenced by the abnormal relations existing between employers and employed, which had been created by the Revolution, and which hampered the efficient working of the industry. Having decided to introduce the monopoly, the Provisional Government availed itself of the opportunity, and by its intervention in the fuel market attempted to assist the mining industry.

The establishment of the monopoly was accompanied by a series of other measures. The Monopoly Act provided for the general

supervision of output and transport, which was entrusted to the Coal Inspectorate, as had been done by the law of 7th March 1916. But under the monopoly, the State control of the collieries naturally assumed a different character. The State now acted not only as supervisor, but as proprietor of all the coal extracted in the Donetz district, having an unlimited right to dispose of it as it thought best. As the sole agent responsible for the supply of all the Donetz coal to the consumers, the State was now interested not only in its regular distribution, but also in its increased output. Although the monopoly was strictly limited to the sale of extracted coal, and the mine-owners retained their right of property in the mines, the State was inevitably forced to institute a control over production, and over all the commercial operations of the firms.

For this purpose the old regulations of the inspectorate of the collieries under the orders of the Chief Commissioner were replaced by new ones issued on the 17th August 1917. Previously to this, as early as 17th May 1917, the inspectors had already received instructions which were to be put into force on the declaration of the monopoly. These new regulations (of the 17th August and of the 17th May 1917) provided as follows for the supervision of the mining industry. The competence of the inspectorate extended over all the collieries of the south and southeast of Russia. The inspectors were charged with the supervision of the work of extraction, and of the loading of the railway trucks.

The duties and powers of the inspectors were twofold. On the one hand they were directly connected with the working of the monopoly, for the purpose of which the inspectors with their advisory committees of experts acted as the representatives of the public authority. On the other hand they included the general control of the many collieries concentrated in the Donetz Basin.

Under the first category of duties, the inspectors were required:

(1) to obtain and verify information concerning the present and prospective output of each mine;

(2) to verify the amount of coal required for the working of each mine; also the quantities carted away with horses, and the quantity intended for coking and the production of briquettes; also the quantity delivered free or at reduced price to the owner of the mine by the lessee in accordance with the contract of lease, if such contract allowed the owner to sell or otherwise alienate the coal thus obtained;

(3) to obtain information from each colliery as to the quantity of coal transported by rail or carted away with horses;

(4) to obtain and verify information as to the quantity and quality of the fuel extracted or prepared;

(5) to ascertain the needs of each of the collieries;

(6) to help in arriving at the cost of production of the fuel;

(7) to take over the coal at the points of loading;

(8) to organize government depots at the stations where the coal might be stored and forwarded to its destination;

(9) to register the quantity, quality, and grade of the coal and to supervise the actual state of the stock in hand, in cases where loans had been made on the coal which remained untransported at the collieries and was hindering the working of the mines;

(10) to collaborate with the loan committee in collecting various data, in supervising the working of collieries in receipt of subsidies, and in appraising collieries.

The Chief Inspector and his assistant were to be appointed by the President of the Special Council, the local inspectors and their assistants by the Chief Commissioner for the Donetz coal. The expenses of the State control were to be defrayed by contributions from the collieries. The inspectors were also charged with the duty of organizing the committees of experts. These under the law of the 19th July 1917 were to consist in each case of the local inspector and two members, one representing the coal merchants of the district, the other representing the railways. Their duties were:

(1) to identify the quality of the coal and trade-mark of the consignor;

(2) to determine the exact quantity of coal in stock in cases where loans were made;

(3) to give their opinion in any cases of misunderstanding regarding deliveries.

The experts had also the right to examine the mines and stores, and to take samples of coal for test.

Such were the functions of the inspectors, in connection with the introduction of monopoly. But besides attempting to introduce a more rational system of distribution of the stock of fuel, the State had other ends in view.

Already at an earlier stage, having regard to the continual con-

flicts between the owners of the mines and miners, and of the reiterated insistence of the latter on the necessity of State control over the industry, the Government had appointed its commissaries at several collieries. Moreover, the committees of control formed by the workmen had to a certain extent already assumed the control of the mining industry. This involved more extensive duties for the government inspectors and practically placed in their hands the State control of the industry. The inspectors were required to supervise the working of the collieries and especially were to see that each was employed to the best advantage for the purposes of the War. It was their duty to see that a colliery did its best to attain the maximum output and to keep its technical methods up to date.

The law of the 17th August 1917 instructed the inspectors to exercise their control in such a manner as not to interfere with the working of the enterprise, while the regulations of the 17th May explicitly stated that they should take no part in the management of the concerns. But both these enactments placed the collieries under a very thorough control in the person of the inspectors. The latter were to watch that the policy and measures adopted by the management of the collieries were not contrary to the interests of the State. An inspector might veto a measure adopted by a meeting of shareholders, board of directors, managers, or owners, and any contract or commercial transaction, if he considered it contrary to the interests of the State. He was to report immediately to the Special Council for Fuel if he took such action. He was authorized to supervise the correspondence, to be present at the meetings of shareholders, to acquaint himself with the names of the latter, and to be present at meetings of the board of directors. He had free access to any part of the works and the right to demand any information and any documents he might want to see, in order to be able to supervise the industrial and commercial working of the business.

These were the chief rules laid down by the regulations of the 17th May 1917. But during the three months that had elapsed between their publication and the introduction of the monopoly, the Government had to go much further in the direction of control. It was not only the commercial operations of the mining concerns that were now subjected to the control of the inspectors by the law of the 17th August but also their financial transactions. This law satisfied the demand for a control over the profits accruing to the mine-owners by

limiting the freedom of the collieries to dispose of their capital and to conduct financial operations. It now became the duty of the inspectors to supervise the expenditure and revenue of the concerns.

No obligation implying a diminution of capital or an increase of liabilities of the business was valid without the signature of the inspector, which was also required on all written demands presented to the government offices. No disbursement other than the usual payments might be made without his signature. No safe might be opened without his permission. He might personally verify the assets of the business, and examine all books. It was also his duty to see that funds belonging to the business were not spent on the personal needs of the owners and managers, that they were not deposited in banks to the personal account of the owners, and that no person in any way connected with the business received credit from it, if not commercially necessary. An owner might draw on the banking account of the business or receive cash from its cashier only with permission of the inspector.

With a view to keeping the central authority informed of all that was going on in connection with the supply of fuel, the inspectors were required to provide the Special Council for Fuel with the following information:

(1) the exact designation of all the collieries, works, and stores in their district, and their exact address;

(2) the class of the trade licenses issued to each colliery within the last three years;

(3) the number of hands employed on the 1st July 1914, and at the time of the inspector's entering on his functions, and the number of the permanent employees, engineers, etc.;

(4) the nature of the fuel provided by the colliery, and the names of the managing staff;

(5) the contracts each colliery had in hand for the delivery of fuel, if possessing any public importance, and the extent to which each was employed for war work;

(6) the balance on the profit and loss account of each colliery for the previous year, and the results anticipated for the current year.

New prices were fixed simultaneously with the introduction of the monopoly. The prices for Donetz coal were fixed on 5th August at from 25 to 46.8 copecks, for anthracite from 25.5 to 51 copecks, for

briquettes from 49.9 to 51, and for coke from 46 to 62.5 copecks the pud. On the 1st September, however, the prices per pud were raised as follows:

	<i>For purchase copecks</i>	<i>For sale copecks</i>
Coal	43.5 to 52	54.6 to 70.8
Anthracite	31.0 to 65	41.0 to 77.5
Coke	35.0 to 80	45.0 to 93.0 ⁷

The introduction of the State monopoly of the coal trade in the Donetz Basin met with the general disapproval of the mine-owners. The *Premishlennost i Torgovlya* (*Industry and Commerce*), the paper of the Permanent Council of the Congress of Representatives of Industry and Commerce, in its issue of the 13th May 1917 advanced the following arguments against the monopoly. "The distribution and supply of coal by the State involved the transfer of these duties from men of commercial practice and experience to inexperienced government officials. The regulation of the supply to the railways might be effected more easily by a judicious allotment of requisitioned fuel, without the establishment of a monopoly. A more consistent policy on the part of the local commissioners might have had a perceptible influence on distribution. The introduction of the State monopoly will necessitate cumbersome official machinery, which in its turn will entail considerable expenditure, particularly at the present time, when since the Revolution all salaries have become so high. Even before the monopoly was set up, the Special Council for the Fuel cost the budget five million rubles, and was one of the causes of the high price of fuel."

Finally, the most serious argument against the monopoly was that it did not remove the chief difficulty from which consumers suffered—the disorganization of transport, which was the real cause of the shortage and irregular distribution of fuel.

However, the opinion of the partisans of the monopoly prevailed, and it was introduced by the Provisional Government. But this hap-

⁷ The above prices per pud, converted at the rate of exchange of the day (one ruble=9d.), are equivalent to the following prices per ton:

Coal	20s. 3d. to 24s. 2d.	24s. 6d. to 33s. 0d.
Anthracite	14s. 5d. to 30s. 8d.	19s. 1d. to 35s. 0d.
Coke	16s. 6d. to 37s. 3d.	20s. 7d. to 43s. 3d.

pened only a short time before the fall of the Government itself. From the middle of August the Provisional Government entered on a period of such serious difficulties, both at home and abroad, that politics threw economics into the background. The country was becoming more and more disorganized, and the realization of the new measure was impossible. The machinery of local administration had practically come to a standstill. Transport was in a condition of unprecedented disorder. The State was losing all its authority.

During the two months that separated the Provisional Government from its overthrow by the Bolshevik Revolution, the introduction of the coal monopoly could not have had any influence on the market. It was never actually put into force, so that we are not in a position to examine its effect.

CHAPTER VI

REGULATION OF THE TEXTILE AND LEATHER MARKETS

1. *Distribution of the raw materials of the textile industry.*

TOWARDS the end of 1916, as has already been stated, the Government's policy in the matter of supplying the textile and leather industries with raw materials had led to the exercise of a far-reaching control over the whole market. This control extended to raw materials (cotton, wool, hides, and skins), as well as to manufactured goods (cotton and woolen fabrics, and leather articles).

The institution of the *Tsentrokhlopok* and *Tsentroshest* practically eliminated all the existing private commercial machinery. These new institutions had been formed by the mill-owners themselves, but they were obliged to work in close coöperation with the corresponding committees of supply. It was the latter that fixed the prices for raw materials, cotton, wool, etc., as well as for manufactured goods. They also supervised all transactions both in raw materials and in manufactured goods.

But the *Tsentrokhlopok* and *Tsentroshest* had been formed only at the end of 1916. The results could have become apparent only in the early part of 1917, that is, at the very time when the Revolution was effecting a sharp change in all the economic conditions of the country, and giving a new direction to its policy. The policy of the pre-revolutionary period had had in view primarily the regulation of the distribution and supply of raw materials. Only industrial production had been subjected to the supervision of the State. After the Revolution, attention was directed in a great measure, not only to the needs of industry, but also to those of the population. In consequence of this change of direction, the Government's efforts concentrated soon after the Revolution on the supply and distribution of manufactured goods.

As a matter of course the control of prices and the regulation of the distribution of raw materials went on as before, even on an increased scale. But the more serious attention of the Government was directed to satisfying the needs of the population. This was in ac-

cordance with the general trend of public opinion in questions of economic policy.

Before the Revolution the extension of State control over the supply and distribution of raw materials had resulted in the gradual concentration of all transactions in the hands of the Government. Private commercial operations had been greatly limited in their scope, if not completely eliminated. The new policy of directly supplying the demands of the population now tended towards the suppression of private trade in manufactured goods as well as in raw materials—in short towards the State monopoly of all trade. We shall see presently that in the case of textile fabrics this monopoly was in fact established.

But we must in the first place briefly refer to the State's activity in regulating the distribution of raw materials, which became more complete under the revolutionary Government. As regards price control, the measures taken after the Revolution were more peremptory and not less determined. But the conditions under which this control was carried out were very unfavorable, and precluded the good results that might have been attained under different circumstances.

The principal economic features of the revolutionary period, as indicated by the figures given in Chapter II of Part I of this work, were the continual fall in the value of the ruble, and the rise in prices. The latter phenomenon was not solely due to the confusion on the money market, but also to the increase of the cost and decrease in the productivity of labor, the general rise in the cost of production, the disorganization of transport, and the increasing shortage of goods on the market.

These circumstances rendered necessary a frequent revision of fixed prices. The following table shows the frequency of these changes.

Dates of change of prices

Calico	7th December 1916; 28th May, 11th August 1917
Various cotton fabrics	7th December 1916; 11th April, 23rd May, 31st July, 17th August 1917
Linen fabrics	11th January, 30th January 1917
Cotton yarn	7th December 1916; 8th April, 20th July 1917
Flaxen yarn	11th January, 28th April, 27th July 1917
Regulation cloth for army	16th December 1916; 6th April, 12th June, 17th July, 23rd September 1917

Dates of change of prices

Sheepskins	31st December 1916; 15th June, 29th September 1917
Wool	15th March, 31st July, 17th August 1917
Rawhides	1st March, 1st June, 12th June, 9th September 1917

The prices of raw cotton were subject to special rules. The institution of the *Tsentrokhlopok* was the outcome of the difficulties experienced in purchasing raw cotton at the places of production.

In consequence of the irregularities prevailing on the cotton market in Moscow and at the plantations in central Asia, an attempt was made towards the end of 1916 to extend the control of prices not only to ginned, but also to unginned, cotton. But this decision was arrived at too late. The supply of cotton on offer was insufficient. The conditions on the market were quite abnormal, and it became increasingly difficult to supply cotton to the mills that were most in need of it. It was in the hope of bettering these conditions that the *Tsentrokhlopok* was organized. This organization was intended to control and concentrate in its hands the whole supply of cotton and to distribute it to the mills.

By the beginning of 1917, it became apparent that the condition of the cotton market, particularly for the private consumer, was highly unsatisfactory. Judging from the experience of previous years, the amount of cotton necessary for the production of the 19 million puds (306,000 tons) of yarn, and 15 million puds (242,000 tons) of unbleached fabrics, that were to be produced in 1917, would be 22.7 million puds (366,000 tons), including 15.8 million puds (255,000 tons) of Russian, and 6.9 million puds (111,000 tons) of foreign cotton. The cotton crop of 1916 in Turkestan yielded 14.5 million puds (233,000 tons), in 1917 it amounted to only 9.5 million (153,000 tons). As to the import, in the first five months of 1917 it was only 1,712,000 puds (27,000 tons). So there was small hope that the demand of the textile industry would be met. A great rise in prices was inevitable, and in anticipation of this the market became the field of violent speculation.

Although the congress of cotton-planters continued to insist that as heretofore the price of unginned cotton should remain free, and only the price of ginned cotton should be fixed, the Government

nevertheless decided to fix the price for unginned cotton also. It went further: one of the defects of the regulation of prices in 1916 was that it did not subject to control the prices of the by-products of cotton (pods, seeds, cottonseed oil, soap, etc.). Under the existing conditions, the price of cotton being controlled, and the prices of its by-products open to the fluctuations of a free market and rising continually, there was more profit to be made by purchasing unginned cotton for the manufacture of these products. These provided substitutes for butter and soap, of which a great shortage was beginning to be felt. They were in great demand, and their price constantly increased. The high prices that the manufacturers of these products were able to give for unginned cotton made the speculators and planters willing to sell their goods to them in preference to other purchasers. As a consequence the shortage of cotton for the textile industry became more and more acute.

The decision of the Provisional Government to fix the prices of unginned cotton and its by-products, with a view of putting an end to speculation, was quite natural and rational. "The control of prices of unginned cotton," wrote the official paper of the Ministry of Commerce and Industry, "is logically right. It provides a foundation on which it will be easy to erect a complete structure of fixed prices, all other goods having their prices fixed in proportion to their value relatively to cotton. Not only can there be no logical objection to fixing the prices of unginned cotton, but on the contrary it must be viewed as the keystone of the whole system. More than this, it must be conceded that this control of prices secures the maximum of profit to the planters, who have to deal with unginned cotton alone, selling it to middlemen and dealers."¹

But at the same time it was recognized that for technical reasons a systematic control of the price of unginned cotton was impossible. The control was difficult owing mainly to the great number of varieties of cotton and to differences of quality; the latter depended on local conditions, and produced considerable inequality in the yield of ginned fiber. A series of prices would have had to be fixed, according to the locality and the kind. As reliable information regarding the quality was not to be had, it was impossible to fix the price. The decision of the Provisional Government, therefore, could not be put

¹ *Vestnik Finansov*, 8th October 1917.

into practice, and once more the price was fixed only for ginned cotton.

It was fixed very high—at 105 rubles the pud (78s.), being based on the following estimate. The average crop of cotton was reckoned at 56 puds (17.9 cwt.) to the deciatine; the cost for a deciatine (2.7 acres) was 1,864 rubles (*c.* £70); and 3 puds and 15 pounds yielded a pud of ginned cotton. The pud of unginned cotton was estimated, therefore, at 33 rubles (24s. 9d.). But according to another calculation the cost of a pud of raw cotton was 30 rubles (21s. 8d.), or even only 26 rubles (19s. 6d.). However, the first price was taken as a basis.

Before the Revolution, by the law of 7th December 1916, the Government had already introduced stricter regulations with regard to the price of textile fabrics. These aimed at greater elasticity, and also at a more minute control at all stages of the trade. After the Revolution these regulations so far as cotton goods were concerned remained in force, with a few additions and amendments, necessitated by the altered conditions. Under these regulations, manufacturers might sell their goods only at the prices shown on a list sanctioned by the Cotton Committee. These prices were fixed in the following way. An increase was allowed of from 125 to 170 per cent on the prices of the 19th July 1914, everywhere except in Moscow and Petrograd. In these towns from 1 to 8 per cent was added for carriage; a further addition after July 1917 was made of from 2 to 12 per cent, according to the distance from the mills to Moscow or Petrograd. Wholesale dealers, when selling to retail merchants, were authorized to add another 10 per cent for commercial expenses and for profit. If a contract for sale was made on credit, 8 per cent per annum interest was allowed. Retail dealers were authorized to add 25 per cent to the wholesale price in the provinces, and 30 per cent in the capitals, with an addition for the cost of carriage. The fabrics that were not named in the price list, and also those that were offered for sale by small dealers without specification of quality or make, might be sold up to a certain date at uncontrolled prices. But in July 1917 this rule was altered.

Before the Revolution (11th January 1917) the sale of waterproof canvases was also subject to control. Those weighing 65 puds and more per 100 square arshines,² that is, those used at the front,

² One square arshine=5.4 square feet.

might be sold by the factories to private purchasers only by order of the Linen and Jute Subcommittees of the Committee of Supply. The Cotton Committee's powers of distribution were widened by the Provisional Government. Before the Revolution the Committee could dispose only of the supplies of cotton that were consigned in its name. It is true that a series of regulations, which have been already referred to, was intended to give the Committee the right of exercising a wider control over all the cotton in the country, but as it had never been put into force, the Committee could in reality dispose only of the consignments of cotton that it actually received.

The decree of the 28th April 1917 empowered the Committee to dispose of all supplies of cotton wherever they were, and to distribute them to the mills working for the army and navy, in proportion to the number of orders they had received, and having regard to the stock of cotton in their possession. The organization of the *Tsentrokhlopok* had in view the purchase and distribution of the raw materials only. It was now the semi-manufactured goods that were to be subjected to control, as the regulation of distribution of raw cotton alone had not attained the desired object. In spite of rigorous supervision, instances of cotton yarn escaping the vigilance of the State control occurred from time to time. This caused the Government to issue a decree (2nd June 1917) making all cotton yarn (even that sold in advance by contract) subject to the same rules of distribution as raw cotton.

The surplus yarn remaining after the needs of defense had been satisfied was distributed to the mills working for the ordinary market. The distribution of yarn to the mills working for the army was carried out by the cotton sections of the War Industries Committee in Petrograd and Moscow. The owners of spinning-mills were obliged to inform the Cotton Committee of the productive capacity of their mills and as to the quantity of cotton used and the stock left in their hands. These data were to be furnished in accordance with a schedule form and at fixed dates, appointed by the Committee. The latter had the right to verify, through special agents, the information received, and to be shown all documents, books, etc., on demand.

The Committee determined the form of the records of the yarn allowed to the mills. It fixed the quantity to be held in reserve to assure the uninterrupted work of the mills, and the quantity to be

distributed. The yarn, with the exception of the reserve stock, was distributed by the Committee to the weaving-mills, in accordance with fixed rules based on the number of looms, the quantity of fuel in the possession of each mill, and the number of hands employed.

Mills or persons desirous of obtaining yarn were to procure a certificate giving them the right of purchase. The certificates for private purposes were given by the Cotton Committee and those for mills doing war work by the Central War Industries Committee. The spinning-mills were under the obligation to sell their yarn at fixed prices only to firms or persons in possession of such certificates. The resale of yarn was forbidden.

The distribution of finished cotton fabrics was also subject to certain regulations. All cotton and unbleached fabrics of Russian manufacture were required to be sold to the factories that finished them. The regulations for the distribution of these fabrics were the same as for the yarn. But the obligation of sale extended only to the surplus that remained over the amount needed by the mills themselves for their own production. As early as 1916 the shortage of wool produced serious embarrassment in the cloth industry. In spite of the measures taken in that year, the distribution of wool and woollen yarn was very unequal, and the *Tsentroshest* was unable to control it satisfactorily. The Provisional Government, therefore, issued new rules which were intended to render the control of the distribution of wool more effective, and its circulation on the market more regular. Supplies of wool were to be brought for scouring to the establishment of the Army Supply Department, and from thence to be distributed to the mills manufacturing cloth for the army, proportionately to the amount of orders received by each. The remaining stock if not sold within a certain period was liable to requisition.

The right of purchase of coarse wool was given exclusively (law of the 28th April 1917) to mills working for the army. Permits to this effect were issued by the Coarse Woollen Goods Department of the Wool Committee. These permits contained the name of the purchaser and the mill for which it was intended, and the quantity to be purchased. The quantity was calculated in accordance with the actual requirements of the mill. The seller was obliged to demand the presentation of the permit by the buyer. Brokers were allowed to

take part in these transactions, and their commission was fixed at not exceeding 80 copecks (*c.* 1s. 1d.) the pud.

As a general rule the sale of wool for the ordinary market was forbidden. An exception was made only in respect of small lots, not exceeding 200 puds (3.2 tons), purchased from the farmers. A stock of raw material not exceeding that necessary to assure six months' work, received by 1st April, was considered the normal supply for a mill. In excess of this supply they were allowed to purchase up to 75 per cent of their requirements for the year, *i.e.*, until 1st April of the ensuing year.

All consumers of wool and all public enterprises engaged in supplying cloth mills with raw wool were obliged to inform the Woolen Goods Department of the stock of wool they had in hand. The mills in want of wool were obliged to give a detailed account of their annual production. When, by the beginning of 1917, the results of the clip had been made known, the Wool Committee fixed the quota to be allotted to each mill. The whole quantity to be distributed amounted to 900,000 puds (14,500 tons), as against 1.2 million puds (19,000 tons) in 1916.

The supply was to be distributed as follows:

(1) to the manufacturers of regulation cloth for the army—702,000 puds (11,300 tons), as against 800,000 puds (13,000 tons) in 1916;

(2) to the spinning-mills working for the defense 180,000 (2,900 tons) as against 200,000 puds (3,200 tons) in 1916;

(3) to the manufacture of semi-woolen fabrics 18,000 (290 tons) as against 200,000 puds (3,200 tons) in 1916.

The amount to be distributed had, as we see, diminished by 25 per cent as compared with 1916. This diminution chiefly affected the manufacturers of semi-woolen materials, whose quota was diminished by 91 per cent, as compared with 1916. The manufacture of regulation cloth and the spinning-mills lost only 10 per cent of their quota.

Later on (28th September 1917) the same strict rules were introduced for the distribution of woolen yarn, identical with those regulating the distribution of cotton yarn. All supplies of woolen yarn were distributed by the Wool Committee. All holders of woolen yarn were obliged to give the Committee full information respecting the amount in their hands, their own requirements, the productive ea-

capacity of the mill, etc. The Committee prepared a register of all supplies in accordance with special rules it drew up for the purpose. The yarn might be sold only on the strength of certificates issued by the Committee, and might be purchased only by persons provided with such certificates. Resale was forbidden.

By September the control of the supply of yarn was thus completed and extended to the whole textile industry, and was governed by uniform rules. This uniformity constituted the principal difference between the control of 1917 and that of 1916. Under the latter the distribution and supply of wool were more rigorously supervised than that of cotton. It gave more attention to raw materials than to yarn. In all other respects the new control was essentially identical with and pursued the same aims as that which it had superseded.

2. State monopoly of leather.

By the end of 1916, as we have seen, the unsatisfactory conditions of the leather market had forced the Government to take energetic action in buying up hides and skins, and distributing them to the factories in need of them. But all the measures adopted were powerless to remedy the abnormal conditions affecting the leather market. Speculation in raw hides and leather goods continued to flourish. Rumors of the extraordinary extent to which abuses had developed, and the insistence of the Central War Industries Committee, caused the Government to undertake an inquiry into the conditions of the leather trade. The inquiry was entrusted to a committee presided over by a member of the State Council, Muratov.

The inquiry revealed the existence of many abuses and irregular practices on the market. The Committee of Inquiry appointed by the Government attributed all these abuses to the manufacturers and traders, and to the unofficial public bodies—in particular to the Union of Zemstvos. The Central War Industries Committee and the Union of Zemstvos, on the other hand, imputed the deplorable confusion in the market to the government agents, and in particular to the Leather Committee of the Ministry of Commerce and Industry. The President of the Central War Industries Committee, M. Guchkov, declared that “speculation, accompanied by an inflation of prices and a wholesale disappearance of valuable leather, was a regular feature of the present condition of the market. In Petro-

grad, the Central Committee for the supply of leather has proved its complete inability to introduce any order. Its local agents are conspicuous by their absence. All these conditions have placed the leather industry in serious difficulties. Owing to the shortage of raw materials, most of the Siberian leather factories, working for the army, are in danger of being unable to fulfil their contracts. These circumstances have forced the War Industries Committee to intervene actively by organizing special hide exchanges in Siberia."

Thus even before the Revolution an urgent need was felt for the introduction of order on the market, and for a more rigorous control on the part of the Government of the distribution of raw materials. Very soon after the Revolution the Provisional Government issued a decree (prepared by the late Government) prohibiting the sale or transfer of hides or leather except through the intermediary of the State. In April the Provisional Government and the Ministry of Commerce and Industry issued new regulations for the leather market, establishing a State monopoly.³

By the decree of the Provisional Government of the 21st April 1917 all supplies of bullock, horse, and camel hides, whether raw or tanned, available in the country at the date of the issue of the decree, or to be obtained in future in European or Asiatic Russia, or in the territories occupied by the Russian army, were placed in the possession of the State. A Central Committee and local committees for the supply of leather constituted by the decree were charged with the duty of carrying this measure into effect.

The leather monopoly was to be organized on the same lines as the coal monopoly. All raw hides were to be delivered by the owners to the State at fixed prices. This was to be effected through the agency of the Union of Zemstvos, of the All-Russian Association of Tanners, of the Army Supply Department, and of the local leather committees. The latter were to keep a record of all hides existing in their respective districts.

The raw material thus obtained was to be distributed to the tanneries, in accordance with the orders placed by the Central Leather Committee. The hides were either to be sold to the tanneries at a fixed price, or handed over to them to be prepared for the use of the army. When ready, the manufactured goods were forwarded to

³ See Appendix XVII.

the local committee and thence on to the Army Supply Department. All the tanned hides and leather goods were to be registered and placed at the disposal of the Central Leather Committee. The latter distributed them through the agency of the local committees to the workshops supplying the army, to the manufacturers, and to the public. So much of the leather as was intended for the general market was distributed by the local committees to the factories working for that market.

For the conveyance of leather from one district to another special permits were to be issued by the respective local committees. Without a permit no leather might be transported, and all such consignments might be addressed only to a local committee.

Thus the monopoly of the leather trade, judging by the rules under which it was put into force, had the following objects in view:

- (1) It made the State the sole distributor of hides and leather.
- (2) It eliminated private commercial machinery in the wholesale leather trade and in those associated branches which provided the trade with raw and semi-manufactured materials.
- (3) It gave the State the means of controlling the market, not only of hides but also (and this was the important part) of leather goods.
- (4) Private enterprise was retained only for the purpose of the retail trade in leather goods, but the State stood between the retail dealer and the producer.⁴ This ultimately forced the Government to go further and undertake the control of the retail trade as well. But the regulation of the supply of necessities to the population, although it influenced the Government's policy in regard to the control of industry, does not fall within the scope of this work, and will be dealt with in a separate monograph.⁵

⁴ See Appendix XVII.

⁵ See p. 184, n. 1.

CHAPTER VII

RESULTS OF STATE CONTROL

1. *Difference in economic policy before and after the Revolution.*

To pronounce a comprehensive judgment on the results of State regulation of industry in Russia during the War is no easy task. Such an estimate involves an answer to an essential question. Did the State regulation of industry and trade contribute to increase the production and facilitate the circulation of goods? Did it improve the economic position of Russia during the War?

In the first place it is impossible to regard the period of the War as one whole: it is divided by the Revolution of March 1917 into two entirely different parts. Before March 1917 the State control was carried on under the conditions of the old régime, with all its traditions, with its bureaucratic machinery, with its deep-rooted and time-honored routine. The economic, social, and political conditions during this period were more or less affected by the shocks of the War, but they did not (this is the important point) undergo any radical alteration. In March 1917 the hurricane of the Revolution swept the country and stirred to activity all the immense human sea of the great Empire. It brought to the surface new social elements, it shattered the old machinery of government before it could replace it by anything else, and undermined the very foundations of the country's structure. Throughout this second period, the country was exposed not only to the shocks of war, but also to those of Revolution. The economic policy was influenced by new ideas and new programs, even when in certain cases the new Government's measures were but the logical continuation of the pre-revolutionary policy, or even the mere execution of decisions arrived at by the late Government.

Many of the economic measures of the old Government were introduced only in the middle of 1916. Their results had barely begun to be felt when the Revolution of March 1917 altered the whole situa-

tion. They were in force for too short a time to allow of any estimate to be formed of their results. The Revolutionary Government, again, was too short-lived for its economic policy to have any deep and appreciable effect on the economic conditions of the country. This makes it impossible to pronounce any judgment on much of that policy.

Lastly, in judging the acts of a government we must not lose sight of the influence of various factors of a nature to modify the results of the measures taken. In Russia the political factor played a very important part. Before the Revolution the permanent, traditional antagonism between the Government and public opinion had an unmistakable effect on the success or failure of any measure. Even during the War the necessary unanimity between the public and the authorities by no means prevailed. The public regarded the Government as an institution that was alien, and might even be hostile, to the aims it was pursuing in the work of national defense. Limited in its rights, hampered in its work and initiative, the Russian community could only with great difficulty develop its energy, its perseverance and public spirit, and even the ardor that was necessary to carry the country through the unexampled trials with which it was confronted. The estrangement that existed between the authorities and the public was a permanent cause of the distrust and sometimes the hostility with which the government decrees were met, even when the measures decreed were in themselves right and necessary.

On the other hand the Government regarded every manifestation of public opinion as a threat to its power and its complete irresponsibility. The Government was conscious of the hostile feelings of the country, and was afraid to give free play to unofficial forces. It tried to keep in check all unofficial war work, and regarded such work with mistrust and resentment. It did all in its power to employ only its own bureaucratic machinery and its own officials. The consequence of these abnormal conditions was that the Government, for fear of public forces, would refuse to take measures which were dictated by the march of events, and by the whole trend of its own economic policy. So it was that in many instances political considerations prevented the full application of necessary measures.

After March 1917 the Revolution became the dominating factor.

It freed public initiative and opened all governmental and municipal institutions to the people at large. But at the same time the Revolution greatly weakened the central power and the machinery of government, both in the capital and in the provinces. Having called to life the creative forces of the nation, the Revolution was inevitably forced to replace the principle of personal administration by a collegiate system, a system of numerous and long-drawn discussions, at a time when a rapid and decided action was above all needed. During the Revolution the democratic elements were not free from a feeling of distrust and sometimes even of hostility towards all authority. Every representative of the State, however democratic, lost the public confidence if he failed to introduce a measure that was demanded of him, still more so if he refused to submit to the control of the democratic organizations.

All these organizations, in the form of numerous Soviets of Workmen, Peasant, and Soldier Deputies, of committees, unions, Central Soviets, bureaus, etc., aspired to play an important rôle in politics, not only as consultative or legislative, but also as executive and administrative bodies. The very mechanism of administration under the revolutionary government was such as to preclude any decisive success in the execution of its economic policy.

Next to the political, the social factor had no small influence on the economic policy, both before and after the Revolution. The old Imperial Government tried to preserve at least the semblance of a nonparty and nonclass policy. It had to consider not only the ruling landed gentry, but also the industrial circles, the bourgeoisie, the mass of the peasant population, and even the working class. It knew that in satisfying the needs of the peasantry, it was guaranteeing the food supply of the towns and the army. It understood that if industry was to work regularly, to meet the needs of the army, conditions must be favorable for the manufacturers, and the disposition of the workmen peaceful. But these considerations were merely theoretical, and were understood only by a part of the officials of the old Government. The whole policy of the Government was too closely connected with the higher circles of the ruling classes, among which the representatives of the landed gentry were the most influential. These were ready to uphold the measures limiting the freedom of the commercial and industrial classes, but endeavored to

guard their own interests from the constraint or restrictions that might arise out of war-time conditions.

All questions of economic policy, however, centered around the problem of food supply. A considerable proportion of agricultural produce on the home market, especially of breadstuffs, was furnished by the great landowners. It was natural, therefore, that in the question of tariffs on foodstuffs the voice of the landowners should have a very considerable influence, with which the Government had to reckon. The landed gentry resented every measure restricting the prices of foodstuffs, and at the same time insisted on a more drastic policy of regulation in the sphere of industry. The gentry had not yet ceased to regard the commercial and industrial classes with prejudice, often with mere contempt. On the other hand, the influence of the industrialists on the Government was not proportionate to the part that they played in the economic life of the nation, still less to the importance that industry had acquired during the War. The policy of the Government during the War drove the industrialists into the ranks of the opposition, and this naturally rendered any influence they might have had still less effective. As for the industrial working class, they had no influence at all on the policy of the Government.

Thus social antagonism in the pre-revolutionary period displayed itself mainly between the commercial and industrial classes on the one hand, and the landed gentry on the other. The policy of the Government constantly fluctuated as one or other of these two parties had for the moment the preponderating influence. When the Revolution came, the country found itself plunged into a violent class struggle, which, even before the Bolshevik Revolution of November, more than once took the form of a covert civil war. Whereas before the Revolution the landed gentry had been the predominating force in the country, and regarded all the other classes and social groups as hostile to itself, its interests, and the existing social forms, after the Revolution of March 1917 this dominant position passed to the industrial working class, as represented by the socialist parties.

The policy of the old régime had ignored the interests of the lower classes, and had been under the influence of certain social groups; now the pendulum swung in the opposite direction. The

demand for a democratic policy was introduced into everything connected with the War. Every new measure, especially the organization that it involved, was primarily viewed from the standpoint of democratic principle. Every enactment was appreciated, not at its intrinsic value, but as an asset in a class war that now assumed great proportions and an acute form. In the sphere of the supply of food, the agrarian troubles that had broken out in the rural districts called insistently for new measures. In industry the Government's attempts at organization were at the mercy of the violent class war that was being waged between employers and employed.

In judging the results of the economic policy of the Revolutionary Government, it is necessary to take into account one of the attendant conditions, previously mentioned, which was of the greatest importance, and without the comprehension of which it is impossible rightly to understand this policy. The economic measures adopted by the Provisional Government (from March to the Revolution of November 1917) not only aimed at counteracting the effects on industry of the War, at organizing more adequately the productive forces of the country for a more active defense; they had also a wider plan of action in view, a part of the general program of the socialist parties, which represented the industrial working classes and the peasant population. All the measures of the Revolutionary Government were leveled at the capitalist bourgeois class, and the capitalist bourgeois order of things.

This gave an entirely new character to its economic policy. The effect of the measures taken in 1917 was different from that produced by the policy of the late Government. Before March 1917, the Government had subjected trade and industry to its control. But as we have seen the control was mainly administrative. It was effected by regulating the conditions of the market and of industry, but it did not aim at entirely eliminating the commercial class. After March 1917, the Government's policy tends precisely towards this elimination. The machinery of private commerce was subjected to severe restrictions and limitations on all sides. The monopoly of the grain trade, monopoly of sugar, of coal, of leather, of textiles, the transfer into the hands of the Government of the work of supplying necessities to the population, etc., were all measures based on the idea of a class war, and directed by the socialist parties against the commercial class.

Analogous changes took place in the industrial policy. The institution of workmen's committees, the introduction in certain cases of control by workmen, the enforcement of compulsory syndication with the participation of the State, the introduction of government commissaries in certain factories—all these measures, though connected with the economic war policy, were in reality directed to another and a far-reaching aim—the complete elimination of the capitalist. This made the conditions of State regulation and control after the Revolution so completely different from those which prevailed previous to March 1917, that every comparison of the two periods demands considerable qualification.

Realizing on the one hand the altered political and social conditions that now influenced the Government's policy in regard to industry, we must on the other hand also bear in mind the great change that had come over the economic situation of the country since the beginning of the War. Its ruinous effects on economic life had, no doubt, begun to be felt some time before March 1917. The first symptoms of the economic exhaustion and disorganization of the country showed themselves as early as 1915. By the end of that year these symptoms became more pronounced. In the course of the first half of 1916 there was a certain amelioration, but in the latter half of the year the disastrous effects of the War again became apparent, and by the beginning of 1917 it was clear that the economic organism of the nation was seriously shattered.

Nevertheless before 1917 there was no question of the exhaustion of the country's productive forces. However disorganized the economic machine, however irregular its working—it continued to work, and every time the Government, influenced by public opinion, took the right steps, signs of improvement were immediately seen. At the beginning of 1917 agricultural production was only 6 per cent below the pre-war normal. The yield of some cereals had even increased. Certain industries in 1916 had shown a decided increase of output, even over pre-war times. Others, as for instance the chemical and electrical industries, had found it possible to produce commodities which had never been produced in Russia before and for which the country had always relied on importation. Commerce, owing to certain favorable conditions brought about by the War, had in some respects received a considerable development. Lastly, in spite of the excessive issues of paper money, the exchange rate of the

ruble had not before 1917 fallen disastrously, as it was to fall later on, and the bulk of the population did not as yet feel the effects of any abnormal rise of prices. Undoubtedly the productive forces of the country had been affected, and a certain impoverishment had begun. This, however, was not the result of a general decline of economic life, but rather of an overdevelopment of the production of military supplies, and a too great diversion of productive forces to the service of defense. A more rational policy of utilizing the economic possibilities of the country might have saved Russia from complete ruin.

The Revolution radically changed all the economic conditions. Output and the productivity of labor underwent a sharp fall, owing chiefly to the continual ferment of the Revolution and to the ruin of numerous undertakings. The issue of paper money became so excessive that the ruble began to fall rapidly, and prices to rise rapidly in consequence. The continual strikes, the seizure of factories by the workmen's committees, the refusal of the owners to run their works, the complete disorganization of transport, the unwillingness of the peasants to bring their produce to the towns, the crisis in food supply—all this helped to disorganize completely the economic life of the country.

Meanwhile the main object of the Government's economic policy, the regulation of industry, could be attained only by making general economic conditions more normal. In Russia, as in other countries, the State intervened in economic life, principally in order to correct the loss of equilibrium caused by the War. When this loss of equilibrium was the outcome merely of military conditions, the policy to be pursued was obvious, and the problems it raised simple and comparatively easy of solution. But when economic changes ceased to be merely, or even mainly, the result of war-time conditions, and became the product of entirely different factors arising out of the Revolution, then the realization of a sane economic policy assumed a character of extreme difficulty. The problems to be solved were inevitably and radically altered, and the methods of dealing with them had to be altered likewise.

No appreciation of the State's economic policy in Russia will be correct which loses sight of the new conditions brought about by the Revolution. Price control will afford a particularly instructive example. The economic situation that obtained before the autumn of

1916 presented no special difficulties in the matter of the regulation of prices. Such a regulation is not in general a problem easy of solution. It demands the calculation of the most varied factors, which in ordinary conditions are left to work themselves out freely. But as the only influence affecting the conditions of the money market, of production, and of labor, was the War, the problem could be solved without exceptional difficulty. These conditions were not subject to frequent and sharp fluctuations. The influence of the War could be foreseen and calculated beforehand. The factors influencing prices might be estimated in advance, and the prices fixed for a longer or shorter period.

After the Revolution the situation was completely changed. The daily decline in the economic condition of the country, the daily fall in value of the ruble, the continual strikes, caused the cost of production to fluctuate so sharply that it was practically impossible to estimate it. Prices fixed yesterday, and which seemed fair or even excessive, were on the morrow inadequate, owing to the fall of the ruble, or the higher cost of labor. We, therefore, see constant changes in the scale of fixed prices.

Prices being an important factor in shaping the conditions of the market, these constant changes necessitated a constant adaptation of all economic life to the altered circumstances. Nearly every day brought with it altered economic conditions, to which the Government's policy had to be adapted anew.

The factors influencing State control, before and after the Revolution, were so completely different, that it is impossible to pronounce one general judgment on Russian economic policy during the whole course of the War.

2. Arguments of the opponents of State control.

In Russia, as in other countries, State regulation of industry and trade had many opponents. It is true, as we have seen, that the first demand for a more rigorous control by the State came in some cases (as for example at the end of 1915) from the industrialists themselves. But with few exceptions, each industrial group considered intervention necessary and useful not for itself, but for those branches of trade where they were themselves handicapped by the free play of competition. The same group that would begin by insisting on the necessity of State intervention would very soon oppose

it, the moment that the logical development of the economic policy brought with it a more rigorous control.

The manufacturers insisted that the prices of raw materials should be fixed, while the producers of raw materials urged the Government to exercise its control over the manufacturers who worked for the ordinary market and directly for the consumers. The working class insisted on a thorough control of all branches of industry, but resented all control of the conditions of labor. While it insisted on maximum prices for bread, it would admit no limitation of wages. The peasants and the landed gentry insisted on the mobilization of industry, but protested against fixed prices for agricultural produce.

But apart from the social groups directly interested, there were in Russia many theoretical opponents of government intervention. Their arguments may be summed up as follows:

(1) To fix prices that would be equitable is beyond the power of the State in the present complex conditions of economic life.

(2) To fix prices above the normal level would be unfair to the consumer and would lead to widespread dissatisfaction. To fix prices below the normal level would inevitably lead to decreased production, whereas the essential problem of war-time economics is precisely to raise production.

The interference of the State in the distribution of commodities on the market in most cases either does not attain its object, or has even an opposite effect to that which the State desires. The distribution of commodities on the home market obeys the universal law of supply and demand. Therefore, when the State attempts to direct distribution according to its own judgment, commodities before long become scarce. They evade the control of the State and are surreptitiously directed to those districts where the conditions of the market are more profitable. In these conditions the market is artificially split in two: an official market subject to control, and a free market. On the latter the prices inevitably rise above the normal, and higher than they would have risen if the State had not interfered.

(3) State control is effected by the bureaucratic administrative machinery, which has no acquaintance with practical business problems, is less pliable and less adaptable than the machinery of private commerce, and calls forth abuses and evasion of the law. Under these conditions, State control does not put an end to the disorganization of the market, nor does it protect the real interests of the population,

but rather serves to render the conditions more onerous for the latter by making it pay for the difficulties and risks of the traders, who are forced to have recourse to illicit practices in selling their goods.

(4) Finally, under the conditions of a continual crisis, such as war occasions, the rise of prices is caused by the scarcity of goods; the rise of the cost of production and the unequal distribution of goods are caused by the disorganization of transport; the disordered state of the commercial mechanism and profiteering are due to the confusion of the money market; and so on. Consequently, as long as these causes remain, State regulation can bring no improvement, and is continually faced by difficulties caused by the general disorganization of the market. On the other hand, if there is no State intervention, the economic machine left to itself will work more naturally and will rectify by its own means the loss of equilibrium that war had brought about.

Such were the chief arguments advanced in Russia, as in other countries, against State control. We shall not stop to inquire whether these arguments were well or ill founded, as a theoretical judgment on the government control of industry is not the object of this work. Nor would it serve any useful purpose to conjecture what might have been the conditions of industry in Russia during the War if there had been no State control. As it was instituted, it remains a fact. Our task in judging it is of a different order. We have to answer the question whether there is any foundation for the assertion that State control in Russia was not only powerless to improve the conditions of the market and the level of production, but led to unfavorable consequences, the very opposite of what its authors had intended.

We shall attempt to clear up this question in the following pages by examining the influence of State intervention on two industries—the textile and the mining industry, in which government control was applied with the greatest thoroughness, and for which we have the most trustworthy data. By examining its influence on these two important industries we shall endeavor to establish the benefits as well as the defects of this policy.

3. Results of State control on the cotton industry.

The intervention of the State in the cotton industry was due, as we have pointed out, to the rise in the price of the raw material on

the Moscow market, the chief center of the trade. During the first months of the War, from August to December 1914, prices for cotton were not quoted on the Moscow exchange. When in January 1915 cotton reappeared on the exchange, the prices had risen and continued to rise as follows:

PRICE OF FERGHANA COTTON IN MOSCOW

Per pud

	<i>1914 rubles</i>	<i>1915 rubles</i>	<i>Percentage rise over average of 1914</i>
January	16.25	22.63	36.7
February	16.13	23.62	42.7
March	16.32	24.00	45.0
April	16.55	26.13	57.9
May	16.98	28.87	74.1
June	16.95	30.75	85.8
July	16.70	29.25	78.2
August	....	27.25	64.7
Average	16.55	26.59	60.7

When a maximum price for cotton was first introduced (26th August 1915) it was fixed at 24 rubles (34s.) the pud. The prices of 1915 were 60.7 per cent higher than those of 1914.

To determine whether the control of prices by the Government was warranted by the conditions of the market, we must first make clear the causes of the rise of prices in 1915. Undoubtedly one of these was the disorganization of transport. This disorganization in the middle of 1915 was so great that it frequently happened that goods could not be transported, even by order of the Army Supply Department, to such institutions as the Red Cross, the Union of Zemstvos, the Union of Towns, all working for the army. Cotton from Ferghana was sometimes five months, and on the average 80 days, on the way, as against the 15 days that cotton normally took to get to its destination from central Asia. Conveyance by goods train was so slow that manufacturers sometimes sent large consignments of cotton as passengers' luggage, and even by parcel post.

Before the War, cotton-planting in central Asia was exceptionally well situated as regards transport, this region being connected with the waterway of the Volga. About 60 per cent of all the Russian

cotton was carried to its destination by this river. From March 1915 onwards the delay in the transport of cotton by this route was as much as 6 or 7 weeks. The supply of raw cotton decreased about 50 per cent, and an enquiry held at the beginning of the War into the conditions of the cotton industry showed that 110 mills had reduced their production, and in 89 cases the cause was shortage of raw materials.

But the irregularities of transport were not alone sufficient to raise the prices to the level that they had attained in 1915. At the time of the declaration of War, *i.e.*, in the autumn of 1914, the supply of the mills was quite satisfactory. As appears from the table of figures given in Appendix XXIV, the supply of Russian and foreign cotton in July 1914 amounted to 28,853,000 puds (465,000 tons). The demand for the manufacturing season of 1914-1915 was estimated at 22.6 million puds (364,000 tons). From the middle of 1914 to the middle of 1915 17,418,000 puds (280,000 tons) of Russian cotton had been placed on the market and 8,237,000 puds (133,400 tons) had been imported, a total of 25,655,000 puds (413,790 tons), or a little over the average of the annual supply of 1909-1913.

But what were the conditions in the cotton-growing districts? In 1914 the cotton crop yielded 17 million puds (274,000 tons) or an increase on the crop of 1913 of 2.8 million puds (45,000 tons) and of 4 million puds (64,000 tons) on the crop of 1912. The daily wage paid to an agricultural laborer during the season of 1913 was 1.60 rubles (3s. 4d.). In 1914 it rose to 1.70 rubles, an increase of only 6 per cent. There was no shortage of workmen, as the native population had not been mobilized. The price of unginned cotton in central Asia was 3.60 rubles (7s. 6d.) the pud, and that of ginned cotton 12 to 15 rubles (25s. to 31s. 3d.) the pud. Towards the end of October 1914 the whole crop was sold at 14 rubles the pud of ginned cotton. Before the War the usual difference in the price of cotton in central Asia and Moscow did not exceed 2.50 rubles (5s. 2d.) the pud. In the middle of 1915 this difference, owing to the higher rate of miscellaneous charges, rose to 6.25 rubles. The price, therefore, in Moscow ought not to have exceeded 20 or 21 rubles the pud.

But already in January 1915 the price on the Moscow market was much higher. The difference between what the prices ought to have been, and the prices actually paid, was as follows:

<i>1915</i>	<i>Difference in prices (in rubles)</i>	<i>Percentage of normal price</i>
January	1.63	7.7
February	2.62	12.4
March	3.00	14.4
April	5.13	24.4
May	7.87	37.4
June	9.75	46.4
July	8.50	44.2
August	6.25	29.7

This difference all went to the dealers. The cotton manufacturers estimated the extra profit made by the dealers for the 17 million puds delivered between July 1914 and July 1915 at 55 million rubles (*c.* £3,200,000).

One of the reasons of the great rise in the prices of cotton was the speculation that prevailed on the market. The same speculation existed in respect of cotton fabrics, and was the result of the special conditions of the industry. The number of great cotton firms was not large. They were 38 in number for all Russia, and nearly all concentrated near Moscow. These firms exercised a kind of monopoly which was favored by the part played in the cotton trade by the banks. The cotton market was practically in the hands of seven great banks, who controlled enormous interests. By giving commercial credit to the mill-owners, the banks helped to keep the goods off the market, and thus to raise the prices. In the spring and summer of 1916 the wholesale and retail trade sold cotton goods at a price increased from 100 to 200 per cent on those charged by the producers.

During the War there emerged a group of persons who had not previously had anything to do with the textile trade. Discovering great possibilities of gain in the confusion of the market, they bought up great quantities of textiles, and stored them, keeping them back in the hope of higher prices. These operations facilitated the policy of the banks. Confident that under the existing conditions a rise of prices was inevitable, they practised a policy of extensive credit to the extent at times of the full price of the goods. Simultaneously the demand for cotton fabrics increased and likewise the price. The mills that worked for the army were forced to buy raw cotton urgently, to fulfil the contracts they had undertaken. The

State orders and the great demand in the country made them sure of being able to dispose of their goods at whatever price might be asked. No matter what the price paid for raw material, the personal interests of the manufacturers did not suffer. The whole weight of the excessive cost fell on the Treasury. As the Government could not restrict its demand, the calculation of the traders was a certainty. This gave a safe basis for profiteering.

The Government could not well remain a disinterested spectator of so abnormal a state of things, brought about by the exceptional conditions, which was prejudicial not only to the private market, but more specially to the State. The control of prices and of transport, the allocation of raw material, the control of loans on goods—all these measures were undertaken in the endeavor to combat irregular practices.

But if we admit that the intervention of the State was fully justified, there still remains the essential question, whether it was not harmful to the cotton industry. The price fixed in August 1915 for ginned cotton of 24 rubles (34s.) the pud, although lower than the existing market price, was not only 50 per cent higher than that of 1914, but even higher than it ought to have been under the given altered circumstances. The price, therefore, was not such as in any way to impede the supply of raw material to the mills. And in fact in the following figures, we see no decline in the supply furnished to the mills during the manufacturing season of 1915-1916:¹

<i>Average supply for 1914-1915</i>	<i>Percentage</i>
	100.
September 1915	193.5
October 1915	178.3
November 1915	79.1
December 1915	76.6
January 1916	68.8
February 1916	124.9
March 1916	156.9
April 1916	225.5
May 1916	246.8
June 1916	374.3
July 1916	175.4
August 1916	175.6
	<hr/>
	122.1

¹ See Appendix XXIV.

Thus it was only during the last three months of 1915, just after the introduction of fixed prices, that the supply showed a decline, but this was followed by a continual and sustained increase. During the whole of 1915-1916 the mills suffered from no shortage of Russian cotton. At the beginning of the industrial year the reserve of cotton was 7 million puds (112,000 tons), including 5 million puds (80,700 tons) at the mills.

If in October to December 1915 the supply of cotton decreased, this was due to the protest entered by the dealers and cotton brokers in central Asia against the introduction of maximum prices. This protest was presented even before the measure had been put into practice. After the maximum prices had been fixed, they submitted a petition for higher prices. In the hope that their petition might be accepted, they refrained for a long time from entering into any new contracts. When in December 1915 the Government finally declared that there would be no change of prices, the conditions became normal once more and cotton began to be forwarded in greater quantities than before.

Neither did the price control have any detrimental effect on the cultivation of cotton. This is evident from the data in the following table relating to the area under cultivation and to prices.²

AREA UNDER COTTON IN TURKESTAN

			<i>Percentage of increase or decrease as compared with previous years</i>	<i>Annual average price per pud of ginned cotton in Moscow</i>			
	<i>Deciastines</i>	<i>Acres</i>		<i>rubles</i>	<i>£</i>	<i>s.</i>	<i>d.</i>
1909	296,820	(801,414)	21.3	14.30	(1	10	8)
1910	325,118	(877,818)	9.5	16.82	(1	15	2)
1911	396,639	(1,070,925)	22.0	15.28	(1	11	11)
1912	389,909	(1,052,754)	—1.7	14.30	(1	9	4)
1913	429,893	(1,160,711)	10.3	15.94	(1	13	4)
1914	444,497	(1,200,142)	3.4	16.55	(1	14	7)
1915	523,558	(1,413,607)	17.8	25.73 ³	(2	0	3)
1916	533,771	(1,441,182)	2.0	28.00 ⁴	(1	15	11)

² See Appendix XXVII.

³ Average quotation and maximum price.

⁴ Average maximum price; up to 1st September 1916 the maximum price was 24 rubles, from 1st September to 1st January 1917 it was 36 rubles.

We thus see that the limitation of prices was in no way harmful to the supply of Russian cotton on the market.

The next question is: Did the price control influence the supply of foreign cotton? In other words was the price of foreign cotton so high that it could not compete with home-grown cotton at the price fixed for the latter? The answer to this question is to be found in a comparison of the prices of American and Ferghana cotton. By the time that the price of Ferghana cotton was fixed, foreign cotton had lost the place it had occupied before the War as the regulator of prices in Russia. In 1915, the price of foreign cotton was much higher than that of Ferghana cotton, as appears from the following table.

PRICES OF FOREIGN COTTON FOR DELIVERY VIA
VLADIVOSTOK AT MOSCOW IN 1915

	<i>Per pud (in rubles)</i>	<i>Percentage excess over average price of Ferghana cotton for 7 months of 1914 (16.55 rubles)</i>
January	18.00	8.7
February	18.35	10.9
March-April	20.75	25.3
May	20.45	23.4
June	21.25	28.4
July	21.45	29.6
August	21.65	30.8
September	24.00	44.0
October	24.40	47.4
November	24.20	46.2
December	25.25	52.6

The average price of American cotton in 1915 was 23.68 rubles (37s. 6d.). The price fixed in Russia was 24 rubles. In 1916, the maximum price of Russian cotton was raised to an average of 28 rubles (*c.* 35s.), or 75 per cent higher than the average of 1914. The prices of American cotton in 1916 were the following:

	<i>Rubles per pud</i>	<i>Percentage excess over average price of Ferghana cotton for 7 months of 1914</i>
January	26.00	57.1
February	26.55	60.1
March	27.00	63.1
April	26.50	60.1
May	27.10	63.1
June	26.85	62.2
July	26.50	60.1
August	27.45	65.9
September	28.65	73.1
October	36.10	118.1
November	36.68	121.6
December	34.95	111.2
Average	29.19	76.3

It is evident from the above that between the price fixed for Russian cotton and the price of American cotton on the market, there was complete accordance.^{4a} Therefore, from the standpoint of economics, the control of prices by the Government was not responsible for the disorganization of production and of the market. The supply of raw material did not decrease; on the contrary it often increased.

But did government control succeed in removing speculation from the market? Did it succeed in reducing the excessive prices paid by the private consumer, and in removing all the unfavorable conditions with which the latter was beset? Certainly neither the limitation of prices, nor the regulation of distribution succeeded in completely removing these conditions. The practice of evading the regulations continued as before. But undoubtedly the Government's policy served to mitigate the baneful influence of illicit practices; at any rate we may positively say that these neither increased nor became more harmful after the introduction of fixed prices.

Before the organization of the *T'sentrokhlöpok*, i.e., before the introduction of the compulsory registration and concentration of deals in cotton, cases of evasion of the rules regarding maximum prices were particularly frequent. The manufacturers often made

^{4a} The maximum price from the 1st September was 36 rubles, that is, 117 per cent higher than the average for 1914. The average price of American cotton in October-December 1916 was 35.91 rubles, or 117 per cent higher than the average price of the Russian cotton in 1914.

contracts with brokers in central Asia at fixed prices, but the brokers took a commission of 50 to 75 copecks per pud.

When buying cotton for delivery in Moscow the manufacturers guaranteed the expenses of the ginning-mills and the cost of transport to its destination at a rate lower than that fixed by law, so that when the local firms received the price fixed by law (which provided for a much higher cost of transport), they gained a certain premium. Bogus bills were often presented for storage, insurance, miscellaneous expenses, etc. Undoubtedly both manufacturers and dealers tried to make as much profit as they could even with fixed prices. As it was impossible openly to break the law, their efforts were directed to widening the margin between the expenses and the maximum prices.

Nevertheless all these abuses, which showed that even with a lower price level neither production nor trade would have been losers, involved no breach of the price regulations. Therefore, the object pursued by the Government—the restriction of the expenditure of the Treasury and of the public by substitution of fixed prices for the arbitrary play of speculation—was to a certain extent attained. At any rate, whatever the loss suffered by the public from these illicit practices, it was smaller after the introduction of fixed prices than before.

The registration and concentration of all transactions in the hands of one institution, the *Tsentrokhlopok*, began in the first days of January 1917. In the course of the first five weeks of its activity, contracts for 2 million puds (32,000 tons) of cotton were registered. The illicit profit beyond the fixed limit amounted to an average of about 2 rubles (*c.* 2s. 4d.) per pud.

During the industrial campaign of 1915-1916, of the 21.5 million puds (346,000 tons) offered on the market, not more than about 7 or 8 million puds fell to the share of the ordinary market. If the fixed prices were evaded to the extent of 2 rubles per pud, the consumers must have overpaid not more than 16 million rubles (*c.* £1,150,000) whereas, as has been pointed out, during the season of 1914-1915, before prices were fixed, the loss was estimated at 55 million rubles (*c.* £4,600,000).

It would accordingly be quite wrong to assert that government control contributed to the disorganization of industry and of the

market, or even that it did not attain its object. In regard to the cotton industry at any rate, this assertion is untrue.

4. Influence of State control in other branches of industry.

The results of State control in the coal-mining and the cotton industry bear witness that the injurious effects ascribed to it did not in reality exist. That the economic policy of the Government did not lead to a decrease of production in the coal industry is most convincingly shown by the figures of the output of coal and anthracite. As appears from the table of figures quoted in Appendix XXI, the output of hard mineral fuel during the War was above the average of the five preceding years in the following proportions.

	<i>1909-1913</i>	<i>1914</i>	<i>1915</i>	<i>1916</i>
Donetz	100	136.1	131.7	136.5
Ural	100	152.7	143.6	143.6
Moscow	100	142.8	185.7	300.
Caucasus	100	117.	108.	102.
Turkestan	100	174.	190.	227.
West Siberia	100	156.	200.	202.
East Siberia	100	113.	111.	159.
	<hr/>	<hr/>	<hr/>	<hr/>
Totals of output	100	136.	134.	141.

In the output of petroleum there was also unquestionably an increase. The percentage of output relative to pre-war times was the following:

	<i>1909-1913</i>	<i>1914</i>	<i>1915</i>	<i>1916</i>
Baku	100	88	94	97
Grozny	100	142	127	149
Others	100	150	166	122
	<hr/>	<hr/>	<hr/>	<hr/>
Total	100	96	101	105

As has been shown in Part I of this work, the War brought about a sharp crisis in the supply of fuel. This, however, was in no way due to State control, but to the general economic conditions of the country. Its causes have been discussed in a previous chapter. These were: the loss of the Dombrowa Basin, the decrease in importation of foreign coal, and the greatly increased demand. The output of Russia itself did not decrease. If this output was unable to satisfy

the demand, it was no fault of the government control. Government control could not in three years, under war conditions, raise the productive capacity of the country to any appreciable extent. Its object was to prevent an artificial shortage of home-produced coal, and this object it attained.

Nor was the output adversely affected by the regulation of prices. An inquiry held by the Kharkov Provincial Committee into the state of the mining industry during nine months of 1916 established that the cost price of coal, at an output of 80 per cent of the normal, was as follows:

	<i>In copecks per pud</i>
First 6 months of 1916	14.5
June	16.
July	17.
August	18.
September	18.

The price of 18 copecks (2.7d.) fixed for requisitioned coal was high enough to satisfy 93 per cent of all the collieries. The maximum loss to those that were less favorably situated was not more than 0.1 or 0.4 copeck the pud. When the requisition price was raised to 19 copecks it fully covered the cost price, and it was found possible to attain an output of 100 per cent at all the collieries.

The chief source of trouble to the coal trade was the disorganization of the railway service. But as State control led to the purchase by the Government of all the surplus coal which could not be carried away and which hampered the work at the pits, the control itself could not be said to entail any real inconvenience. The true sufferers from the congestion of transport were the consumers, but the mining industry itself was not incommoded, and was not deprived thereby of any stimulus to production.⁵

Even in the sphere of the metal industry, in which a certain decline was observable during the War, the production greatly ex-

⁵ It cannot be denied that the awkward and sometimes unintelligent regulation of prices gave rise to confusion in the market. This was especially the case after the middle of 1916. We refer to the unfavorable effect of the policy of prices further on.

See also B. N. Sokolov, *op. cit.*

ceeded that of the pre-war period 1909-1913. Thus in the south the output of pig-iron increased in the following proportions as compared with the pre-war output:

<i>1909-1913</i>	<i>1914</i>	<i>1915</i>	<i>1916</i>
100	124	112	117

In other districts production showed no decline below the average production of the five years preceding the War, or even below that of 1913 alone.

	<i>1913</i>	<i>1914</i>	<i>1915</i>	<i>1916</i>
<i>Ural</i>	<i>(millions of puds and thousands of tons)</i>			
Semi-manufactured goods	55.3 (892)	56.9 (917)	57.6 (929)	57.9 (933)
Finished articles	40.8 (656)	40.6 (654)	40.2 (649)	40.9 (659)
<i>Moscow district</i>				
Semi-manufactured goods	12.9 (209)	14.4 (232)	12.8 (206)	11.5 (185)
Finished articles	11.1 (179)	11.9 (192)	11.2 (180)	11.0 (177)
<i>Northern district</i>				
Semi-manufactured goods	16.1 (259)	16.8 (271)	17.2 (277)	17.8 (287)
Finished articles	16.4 (264)	15.8 (254)	12.9 (209)	14.5 (234)

It is certain that State control did not hamper the manufacture of munitions, as the figures given below testify.

The number of 75 millimeter guns manufactured during the War increased as follows:

First quarter of 1915	68
First quarter of 1916	993
First quarter of 1917	1,068

The number of rifles manufactured in Russia was also rapidly increasing:

July-December 1914	170,000
July-December 1915	700,000
July-December 1916	1,200,000

Lastly, the output of shells for the 75 millimeter guns was at the following rate:

July 1915	260,000
August 1915	970,000
January 1916	1,400,000
August 1916	1,700,000
January 1917	1,600,000

The chemical industry showed considerable progress. Almost non-existent before the War, it succeeded in creating a number of new works, started the production of chemicals never manufactured in Russia before 1914, and laid down the firm foundation of this most important branch of national economy.

Neither did State control hinder production carried on through such unofficial agencies as the war industries committees and the Unions of Zemstvos and of Towns. In June 1915 the Central War Industries Committee distributed orders for 6 million shells. During the first six months of its existence, the Central War Industries Committee expended 75,761,287 rubles (*c.* £5,800,000). The value of the orders that the Central Committee distributed was 122,253,435 rubles (*c.* £9,400,000). Of this sum the regional committees received, to meet orders placed by them, 110,188,745 rubles (*c.* £8,400,000). The committees supplied lathes, guns, hand-grenades, tools, tungsten iron, scissors, shells, horseshoes, camp-kitchens, baking ovens, carts, ammunition, chemicals, etc. During one year of its activity the Moscow Committee distributed orders amounting to the sum of 56 million rubles (*c.* £4,300,000) and effected a saving of 7 million (*c.* £540,000) on market prices; a saving of 26 million (*c.* £2,000,000) was secured by the distribution of orders through the agency of the regional committees.

A sum of 180 million rubles was expended by the iron foundries for the adaptation of their plant to war work, and one million rubles more on extensions. The small industry, the workshops and enterprises belonging to the public organizations, spent 75 million rubles (*c.* £5,700,000) for the same purpose. If we add the value of the plants existing before the War, we may estimate the total value of the necessary equipment for war work at about 600 million rubles (*c.* £46,000,000).

The value of the orders placed through the Mechanical Depart-

ment of the Central War Industry Committee by 1st September 1915 amounted to 110,015,727 rubles (*c.* £9,100,000), by 1st January 1916 to 129,086,403 rubles (*c.* £10,000,000), and by 1st January 1917 to 200 million rubles (*c.* £15,000,000).

The entry and distribution of materials were as follows:

	<i>Delivered to the stores</i>	<i>Distributed from the stores</i>
High-class steel	(<i>in puds and tons</i>)	
1915	4,837 (78.0)	3,000 (48.4)
1916	29,582 (477.1)	25,000 (403.2)
1917	32,566 (525.1)	36,000 (580.5)
Total	66,985 (1,080.2)	64,000 (1,032.1)
Carbon steel		
1915	1,046 (16.8)	600 (9.6)
1916	47,423 (764.9)	29,000 (467.7)
1917	17,474 (281.8)	31,500 (508.0)
Total	65,943 (1,063.5)	61,100 (985.3)

The total value of material given out was 15,913,000 rubles (*c.* £1,000,000).

As early as 1914, the Army Supply Department had given the Union of Zemstvos an order for 7.5 million pairs of undergarments. On the successful execution of this order the Union became the regular purveyor of underwear and tent canvas for the army. Up to July 1916 they had furnished 69,231,258 pieces of underwear, and 3 million sandbags.

State regulation did not hamper the Union of Zemstvos in furnishing up to 1st December 1915 all kinds of articles for the army to a value of 19,019,300 rubles (*c.* £1,900,000). The successful operations of the Union induced the Government, when a more rigorous control of the leather industry became necessary, to hand over to them a monopoly of the purchase of hides. The orders transferred on these conditions attained the value of 100 million rubles.

For the execution of the task thus entrusted to them, the Union of Zemstvos organized its work in the following manner. Through the agency of the district zemstvos the Union received information as to the stock of hides in each district. Availing themselves of their monopoly they bought up all the hides they could discover. These

were then dispatched either to the local zemstvo boards, or to the local war industries committees, which distributed the raw material to the tanneries and the workshops organized for the purpose, to the coöperative societies, to the cottage workers, and to certain factories.

During the period from 15th March to 15th September 1915, the Union prepared 550,000 hides. Tanneries and boot-making workshops were founded in numerous localities. Some of the latter were able to develop their production so successfully that they could turn out 25,000 pairs of boots per day. In the province of Chernigov alone the boot-makers' association delivered in 1915, 202,739 pairs, representing a value of 2 million rubles.

We draw attention to these illustrations of the activity of the war industries committees and the Union of Zemstvos, because they attest the salutary effects of the policy of State regulation. Certainly, as has been said, the war industries committees and the Union of Zemstvos were unofficial organizations, and had no direct part in the exercise of government control, but the success of their work shows that State regulation was no impediment to the development of production and to the supply of the army. Moreover, it was precisely owing to the fact that government control restricted the unlimited growth of prices, and introduced a certain order in the distribution of raw materials, of fuel, and of transport, that these unofficial public organizations were enabled to develop their activity to so considerable an extent.

The growth of Russian industry up to the end of 1916 manifested itself not only in the general increase of production, but also in the creation of new industrial centers for certain branches of industry in Russia itself. This had a twofold importance. In the first place these industries sprang up in, or were transferred to, localities where they were nearer to the sources whence raw materials and fuel were derived, and where labor was more easily obtained. Secondly, the establishment of industrial centers in new localities led to the economic development of these localities, and to their participation in the industrial life of the country. It was the evacuation of enterprises from the vicinity of the front that led to this formation of new industrial centers. Thus several iron foundries were transferred from Warsaw to the interior provinces. The same was done with the rubber factory *Provodnik* from Riga, with the Russia-Baltic Works, the General Electric Company's Works, the Phoenix iron

foundries, and many textile and other factories. Most of these were transplanted with all their technical equipment and their workmen to the central and southern provinces, and brought industrial animation to numerous hitherto insignificant provincial towns. The creation of these new centers was possible only as a result of a systematic policy directed from the center by State authority.

Far from paralyzing production, and in spite of attempts to prove the contrary by examples taken from certain branches of industry, the State regulation of trade and industry during the War did not even impede the growth of industry. Neither the measures undertaken by the Government for regulating prices, nor the continuous growth of the control of production, economically speaking, were in contradiction with the conditions of industrial activity, or with its needs during war-time.

The efforts of the Government to keep down the prices of raw materials were without doubt beneficent rather than otherwise. It is doubtful whether in a time of shortage of raw materials and of furious profiteering, the industries working for the army (which after all were the most important from the point of view of the State) could have been kept adequately supplied with these materials without the intervention of the State. That there was a serious scarcity of raw materials and of fuel, and that industry suffered from it severely, there can be no doubt. Owing to this scarcity Russian industry was incapable of giving all that the War demanded of it. Nor is it open to doubt that the distribution of raw material met with the greatest difficulties; these difficulties disorganized the market and precluded the further growth of industry. Finally, the beneficent effects of State intervention were felt almost exclusively by the industry engaged on work for the army, and executing government orders. The industry working for the civil population was less favorably situated, as State intervention in the affairs of the ordinary market was less active, and the beneficial effects of the Government's policy were felt there in a slighter degree and its defects were more apparent.

But in judging of the results of State intervention we must bear in mind the effects of the War on the Russian economic situation in general, and not attribute these to the Government's policy. In the

first and second parts of this work the conditions under which raw materials were supplied before the War have been described, as well as the changes that ensued on its outbreak. It is unquestionable that a shortage in the supply of these materials, and also of fuel, was inevitable from the very beginning of hostilities. The supply of raw stuffs was already insufficient. In the course of the War the supply increased, but not enough to compensate the decrease of imports, and the great increase of demand. Even had there been no war the mere curtailment of the imports of cotton, wool, chemical goods, etc., would have plunged Russian industry into a crisis. During the War, besides the decrease of imports, industry was faced with an unprecedented increase in demand. To clothe, feed, and supply with full equipment an army of fifteen million men, concentrated at one point, was a problem for which Russian industry, Russian agriculture, and Russian means of transport were in no way adapted.

The output of fuel in Russia before the War was sufficient for home consumption. But, as has been pointed out in the Introduction, the geographical distribution of the Russian industries before the War was such as inevitably to necessitate a considerable import of foreign coal. The Russian railway system was not equal, even in times of peace, to the transport of fuel to all the important industrial centers. It is not astonishing, therefore, that under war conditions, when the import of coal was cut off, the Dombrowa Basin lost, and the demand on the carrying capacity of the railways for the needs of the front had become so great, an acute fuel crisis should have set in.

The example of the breakdown of the fuel supply explains the small success of State intervention in the problem of the distribution of supplies. The success of the distribution policy depended primarily on the railway service. But this was monopolized by the front. Without means of transport all State regulation was doomed to be ineffective.

As regards the unfavorable state of the open market, this was due both to the general economic situation of Russia and to the influence of the War. In Part I we have shown the extent to which the production of military supplies was overdeveloped. It absorbed the great mass of the national productive forces, and left but a scanty residue to meet the needs of the population. The War greatly in-

creased the purchasing capacity of the home market. In the army the market found a new customer for goods, whose demand had previously been either nonexistent or very restricted. As it was necessary to satisfy this customer before any other and at any cost, other customers were bound to suffer. The means of satisfying the demands of the civil population were diminished, and serious dearth in the ordinary market was inevitable.

The national economic situation in Russia had been such that the shocks of the War inevitably made themselves severely felt; and owing to the pre-war state of industry these shocks rendered the industrial situation extremely unfavorable. All this increased the difficulties of State regulation, and doomed to failure many of the measures that were adopted. These failures were due not to the State policy itself but to the inherent economic condition of the country. Having thus defined the influence of these conditions, we shall find it easier to discover the influence of the defects of the system itself.

5. Defects of State regulation.

The first and fundamental mistake made by the Government, which affected the whole of its policy, was that all the steps it took during the War were taken too late. The first serious measures were undertaken, as we have seen, only in August 1915, a year after the commencement of hostilities. But it was just this year that tried industry most severely.

During this period the national economy was adapting itself to the exceptional circumstances and undergoing a succession of shocks in the process. The consequences of the interference with the free play of the law of supply and demand were felt from the very outset, and the market immediately fell into a state of confusion. Industry, transport, foreign trade, the labor market, all the elements of business, were disorganized during the first months, but throughout this most critical period the economic life of the country was left to itself without any help or direction from the Government.

In the course of the year, prices rose immoderately, industrial consumption unconnected with the War had time to grow abnormally. The circulation and distribution of goods assumed a direction that produced and favored profiteering. We have seen from the example of the cotton trade how external conditions affected the rise

of prices. The absence of State control left a wide field for profiteering and entailed on the public an overpayment of tens of millions of rubles. When the Government proceeded to control prices, they had already reached an abnormal level, much higher than was justified by existing conditions. In the end, the Government intervened and fixed prices. It would have acted more rationally and effectively if it had approached the problem at an earlier date.

Before the formation of the Special Council, decisions on economic questions raised by the War rested with the military or civil authorities. They were not dictated by a consistent policy, founded on a real understanding of economic theory, but were merely precipitate administrative decisions. In Russia the military and civil officials were not competent to deal with problems of this kind. They were absolutely ignorant on the subject, and were too much used to act by administrative decrees.

In consequence of this, during the first year of the War, intervention took the form solely of requisitions, especially on the part of the military authorities. These measures were applied to such an extent and with such absence of system, that they threw the market into still greater disorganization. Local military and civil officials gave no general directions, because the Government itself had no fixed program. So the officials in their districts acted as they thought best, and it often happened that what was allowed in one locality was forbidden in another.

The civil authorities had exceedingly rudimentary views as to the way to deal with the rise of prices, with profiteering, and with the shortage of goods. The Governor of the province of Tambov, for instance, used to visit the market and go about asking prices; and if he thought them too high, he horsewhipped the delinquents and ordered them out of the market. No doubt he was an exception, but such measures as requisitions, confiscations, and arrests were the rule.

To handle a problem of such importance as the economic policy of a country according to the personal views of local civil or military officials was a procedure sufficient in itself to produce general confusion in the market; and this was the situation until the Government set about enforcing a coherent policy on a larger scale. In some industries, as for example the leather industry, the disorganization had become so complete that it proved impossible ever thoroughly

to make good, by means of the new policy, the damage done during the first year of hostilities.

But even having decided to introduce a more rational policy the Government had no clear program ready. Its first fundamental error was to attempt, as we have seen, to make too abrupt a change in the opposite direction. During the first year, the Government did not clearly realize the problems it had to cope with, and the need for a new method of dealing with economic questions, if the War was to be conducted more successfully. At the end of the year, on the contrary, the attention of the Government as well as that of the public was exclusively concentrated on the needs of the front.

We have shown that the watchword "All for the War," which was taken up in 1915 by the various classes of the population, led to many undesirable results, not only affecting the civil population and the market, but also the supply of the army's requirements. No doubt the mobilization of industry and the zealous ardor that pervaded the municipal and industrial organizations had a good influence. They roused and organized the productive forces of the nation. They directed their efforts towards one common end: work for the army. They contributed to the increase of production and to the greater tension of all the economic forces of the country. But in this general upheaval everyone forgot the essential fact that a nation's economic life is one whole, and that the unity of the home market is a necessary condition of its normal existence. Translated into plain language the new policy of the Government meant an intervention in the country's business, in its industrial activity, its trade, and its railway service, only in so far as all these were concerned with the needs of defense. In other words the limitation of prices, the control of raw materials and of fuel, and the regulation of transport were exercised only in the interests of the industry engaged on war work and executing orders placed by Government Departments. As a consequence the market was artificially divided in two—the official and the private market. The unity of the market was destroyed. But the economic laws governing the level of prices and the movement of goods remained the same for both sections.

It was impossible that the prices on the official market should be different from the prices on the private market. In theory, prices fixed by the State applied only to the industries employed on war

work. But the strict observance of these prices, when alongside of them there existed simultaneously the free prices of the private market, demanded a meticulous supervision of which the Russian Government, like every other Government, was totally incapable. In these circumstances, the State was unable to extend its control of distribution to the whole of the existing stocks of commodities.

We can judge of the ineffectiveness of State regulation at this period by the following declaration of the Moscow War Industries Committee, adopted in December 1915. "The disorganization of transport has recently attained such dimensions that disaster is imminent. Moscow with its district, the country's most important industrial center, receives scarcely any coal, anthracite, or coke, pig-iron or cast-iron; nothing in short required by the munitions industry. The shortage of these articles is so great that some of the iron foundries have had to restrict their production. Enormous unutilized stocks of coal, amounting to about 110 million puds (1.7 million tons), have accumulated at the collieries. The coal deteriorates or is destroyed by fire where it lies. The following fact will sufficiently illustrate the situation: officers sent to Moscow from the front, to purchase horseshoes and nails for the cavalry, could procure them only with the greatest difficulty at the rate of 42 rubles the pud of nails as against the usual price of 5 or 7 rubles. For horseshoes they paid 75 copecks as against 20 copecks and even at this price they could not get all that were required."

At first, prices were fixed only for requisitioned goods. But of course everyone in want of coal tried to get it through official channels at requisition prices. Requisitioning came to be widely applied. But at the same time a free market, with prices uncontrolled, continued to exist. In order to obtain coal at requisition prices it was necessary not so much to be engaged in war work, as to have useful personal relations. The natural consequence of this state of things was that the coal did not always go to those who needed it most. If by the side of the businesses that were obliged to abide by the fixed prices there were others in a position to pay a higher price on the open market, the latter always found it easier to get what they required. A control of prices applied to only one section of the market not only failed to attain its object, but was injurious to the section that it was intended to protect.

The negative results of this half-hearted policy are observable elsewhere. During the first year of State intervention, up to the middle of 1916, industry working for the civil population and for the ordinary market was left pretty much to its own resources. The materials it required were to be obtained only at very high prices. The supply of commodities to the public was, therefore, beset with difficulties. The branches of industry that had no direct connection with the War were neglected. We have seen in the case of the manufacture of agricultural machinery how serious could be the consequences of this disregard of the needs of the peace industries. The reduced output of agricultural machinery certainly contributed to the decline of agriculture and to the economic embarrassment of the peasantry. This embarrassment in its turn led to difficulty in supplying the urban population with foodstuffs. The food crisis, which took such an acute form in the winter of 1916-1917, had an unfavorable influence on the standard of living of the workmen engaged in war work and reduced the efficiency of their labor.

The close connection between all branches of industry can be traced in the conditions of the textile industry. In this industry State control applied only to the fabrics intended for the army. The ordinary market was free. The result was that the bulk of the output went to supply the army, and the high prices and the confusion of trade made textile goods inaccessible to the public in general, and the peasant population in particular. The same thing occurred in the leather trade. The difficulties experienced in the interior made the work of the industry less efficient than it might otherwise have been. At the same time the army could not be adequately equipped unless satisfactory conditions prevailed in the interior.

A true understanding of these facts began to show itself only in the second half of 1916. It was at the end of that year, after two years of war, that State regulation began to be applied to all industry and trade, in other words that the same measures were enforced for the whole of the home market. Under the Revolutionary Government all the measures adopted followed, at least in theory, one guiding principle, and formed a single harmonious and complete program of economic policy. By the end of 1916 the separation of the market into two parts, the official and the private market, had already gone too far; the private market had broken loose from the influence and control of the State. The inefficiency of this control

appeared so well established that the application of new and stricter regulations to the private market met with serious difficulties which had their origin not only in the economic conditions of the country, but also in the mentality of the people.

During the Revolution these adverse conditions acted with greater force, and the general state of the country was not such as to favor the realization of the new policy. The Provisional Government instituted a series of monopolies, such as that of coal, leather, and textiles. But as regards the two latter, it only put into practice what had been proposed by the previous Government in 1916. These monopolies were introduced at the moment most unsuitable for their success.

Before the Revolution hesitation and vacillation had been the distinctive features of the Government's policy. Ultimately the Government was forced to go very far in the direction of State control, and to adopt measures that had at first seemed undesirable. Would it not have been better to adopt them from the first rather than wait until the force of circumstances made their adoption inevitable?

Maximum prices had been fixed for raw materials only, while the prices of finished articles, and even of semi-manufactured goods and (a highly important point) of all manner of by-products and of substitutes for these raw materials, were left free. This completely upset the market, and resulted either in extravagantly high prices, or in the disappearance of certain commodities, and did not attain even the modest object which had been in view.

We have already pointed out that the fixing of prices for ginned cotton, while unginned cotton and the by-products remained free, led to an excessive production of the latter, and consequently to a decrease in the supply of cotton for the textile industry.

The inconsistency between the control exercised over the production of and trade in raw materials, and the absence of control over the finished article produced a discrepancy in the conditions of the various branches of industry and an inequality in the distribution of the country's income.

Not the least defect of the system of government control was the interval allowed between the introduction of interconnected measures. In this interval the conditions had time to change, and prices fixed for the one kind of goods no longer corresponded to those previously fixed for the other. There was also a lack of resolution in the

enforcement of the measures adopted. Not only was there often no supervision over the actual working of a newly introduced measure, but neither the Government itself nor the public felt any assurance as to its duration. This feature was especially noticeable during the first year of State control (1915-1916). Prices were fixed for too short a period, generally for two or three months. They were subject to too frequent changes. This undoubtedly caused confusion and want of stability in the market. It had barely time to adapt itself to one table of prices, before a new one was introduced.

Besides, and this was far from unimportant, the frequent change of prices induced the dealers to keep back their goods in the hope of obtaining a higher price at the next change. In some cases this was done deliberately and persistently. The dealers thus exerted a certain pressure on the action of the Government. The disappearance of certain goods from the market served to show that the prices fixed were too low, and was intended to force the Government to raise them.

In other cases and without premeditation, contracts for production and forward sales were concluded in advance at the higher rate of the expected periodical change of prices. This was inevitable, as the revision of prices never resulted in a reduction, but always in a rise. We have seen from the example of the cotton prices, that when there was no expectation of a change, and the Government held to its initial decision, the market adapted itself to the existing conditions and the circulation of goods was reestablished. In many cases it would have been preferable to fix the prices at a higher rate from the first with a view to encouraging industry and trade, than to begin with low prices, and thus create an expectant state on the market by the hope of a rise in the near future.

In the regulation of prices of raw materials and fuel the Government did not always act in the interests of the national economy, as when certain groups exerted too great an influence on its decisions. The regulation of the leather market affords an example of this. It was entrusted to one of the biggest tannery-owners, a member of the State Council, who showed a strong bias of personal interest in the distribution of raw materials, which called forth a sharp protest from the Central War Industries Committee. The same thing occurred with regard to the regulation of the sugar industry, when the owner of one of the most important sugar mills was named Min-

ister of Agriculture. The want of impartiality and the influence of personal interest displayed by the higher officials who directed State control influenced the whole army of civil servants in whose hands lay the practical application of the economic policy.

The chief obstacle to the success of the Government's policy was the disorganization of transport. The circulation of goods in the country depended entirely on railway transport. It was, therefore, on the means of transport that all the endeavors of those elements which were not disposed to a strict observance of the law were directed. The conditions brought about by the War placed a large fortune easily and quickly within the reach of every chance owner of goods that had become scarce, and therefore valuable, who did not scruple to take advantage of any means of furthering his interests.

Favoritism and bribery flourished during the War. Certainly it was not State control in itself that was responsible for this. Favoritism and bribery were things of too common occurrence in pre-revolutionary Russia, and it was not the War that first produced them. But undoubtedly at times the clumsy and ineffectual application of State control offered a fair field for their development. At the same time the fact of their existence seriously hampered the successful control of prices, and of equitable distribution. When goods could be obtained by means that eluded fixed prices and all rules, the Government's regulations lost all their efficacy, and remained only a dead letter. In such cases the law of supply and demand ruled the market and the circulation of goods depended on the success of those who were most determined.

Under these circumstances production itself depended on luck and lost the character of orderly industry. At the end of 1916 and early in 1917 Russian economic life was beginning to assume this character. The economic disorganization prevented the realization of State control, and the inefficient intervention of the Government only made things worse. The Revolution completely altered the situation. It began by continuing the economic work of the previous Government and carried the policy pursued by the old régime to its logical conclusion. In endeavoring to bring into unity all the unconnected measures of the late Government and to give them a more solid foundation, the Revolutionary Government was taking the only possible course. But the realization of a complete system of economic policy was complicated by the clash of the demands of military defense with

party politics, by the class struggle, by the beginning of civil war, and by the unprecedented decline of all the productive forces of the country.

Most of the measures adopted by the new Government were never put into practice. The disorganization of all the administrative and economic machinery was so great as to place the very object of government control beyond its grasp. The stricter, the more rigorous, and the more consistent its actions—the more rapidly and surely did the economic life of the country pass out of the reach of State regulation.

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APPENDICES

APPENDIX I

DECREE dated 16th February 1916, prohibiting the sale of Donetz fuel by the present holders otherwise than by special permission.

For the purpose of maintaining the supply of Donetz mineral fuel to consumers, under paragraphs 8 and 13 of Art. 10 of the Law, sanctioned by H. M. on 17th August 1915, constituting the Special Fuel Council for the Discussion and Coördination of measures relating to the supply of fuel to railroads, and to governmental and public institutions and undertakings working for national defense, I hereby order as follows:

I. No private person, nor any undertaking, whether public or private, using Donetz mineral fuel, shall sell, deliver, or in any way alienate the said fuel, either in kind or by bill of lading, either as a whole or in part, to any other such undertaking or to any person whatsoever, without in each case obtaining a special permit for the said purpose from the regional commissioner of the Chairman of the aforesaid Council.

This prohibition does not extend to:

- (a) the retail sale of fuel to private persons from public and private depots;
- (b) the transfer of fuel from one railroad company to another;
- (c) the sale, gift, or other delivery of fuel to consumers conveyed direct from the pits by draught animals.

II. Anyone found guilty of contravening the provisions of this Decree shall under Art. 19 of the Law of 17th August 1915 be liable to confinement in a prison or fortress for a term not exceeding three months, or to a fine not exceeding 3,000 rubles; if the offense is premeditated, the person found guilty shall be liable to imprisonment for a term not less than one year and four months and not

exceeding two years, with forfeiture under Art. 50 of the Penal Code of special rights and privileges (Art. 30, IV, Suppl. 1912).

Signed:

PRINCE SHAKHOVSKOY,

Chairman of the Special Council for the Discussion and Coördination of measures relating to the supply of fuel to the railroads and to governmental and public institutions and undertakings working for the National Defense.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1916, No. 9.)

APPENDIX II

DECREE of 16th February 1916 relating to the requisition of the Donetz mineral fuel.

In pursuance of paragraphs 5 and 8 of Art. 10 of the Law, sanctioned by H. M. on 17th August 1915, constituting the Special Council for the Discussion and Coördination of measures relating to the supply of fuel to railroads, and to governmental and public institutions and undertakings, working for national defense, the following regulations supplementary to the Decree of 23rd October 1915, for the requisition and transfer of solid mineral fuel left unclaimed at the Russian railway stations are hereby prescribed:

1. Where fuel has remained unclaimed for the prescribed term, the railway officials concerned shall immediately inform by telegraph the Commissioner appointed by the Chairman of the Special Fuel Council of the region.¹

2. The said commissioners appointed by the Chairman of the Special Fuel Council shall thereupon be empowered to requisition such fuel.

3. The fuel thus requisitioned is at the disposal of the Commissioner, who shall take immediate steps for its transfer to such consumers as are entitled to purchase hard mineral fuel, as belonging to

¹ The Regional Commissioners have their residence in the following towns:

- (a) In Voronezh—for the provinces of Astrakhan, Voronezh, Penza, Saratov, and Tambov.
- (b) In Kiev—for the provinces of Vilna, Vitebsk, Volhynia, Grodno, Kiev, Kovno, Minsk, Mogilev, Podolia, and Chernigov.
- (c) In Moscow—for the provinces of Archangel, Vladimir, Vologda, Kostroma, Kaluga, Moscow, Nizhni-Novgorod.
- (d) In Odessa—for the provinces of Bessarabia and Kherson.
- (e) In Perm—for the provinces of Vyatka, Perm, Tobolsk, Tomsk, Irkutsk, and Yenisei, for the districts of Troitsk and Chelyabinsk of the Orenburg province, the district of Kustanai of the Turgai province, for the territory of Akmolia and all the territories of Eastern Siberia.
- (f) In Petrograd—for the provinces of the Grand Duchy of Finland and the provinces of Kurland, Livonia, Estland, Novgorod, Olonetz, Pskov, and Petrograd.
- (g) In Rostov-on-Don—for the territory of the Don Cossacks and all the provinces and territories of the Caucasus.

one of the first four categories of purchasers; the purchaser will guarantee payment for it, together with the cost of transport and all overhead costs incurred, by a deposit of 600 rubles for each thousand puds. If the consignee is a State institution or a railroad, this guarantee is not required.

4. The Commissioner appointed by the Chairman of the Special Fuel Council determines the quality of the fuel, according to information received, or, if possible, by examination or test.

5. Prices for the Donetz fuel to be sold to consumers in virtue of the present decree are fixed as follows:

	<i>Copecks the pud</i>
(a) Poor coal, giving a large residue of ash	11
(b) Flaming coal, noncaking	13
(c) Caking coal	15
(d) Sifted coal	17
(e) Anthracite 1st quality	26
(f) Anthracite 2nd quality	24
(g) Anthracite 3rd quality	16
(h) Anthracite 4th quality	9
(i) Anthracite ordinary	17
(j) Anthracite ordinary 2nd quality	16

If the coal to be sold does not come under any of the above grades, the price is fixed by a valuation committee according to the provisions of the Regulations, sanctioned by H. M. on 17th August 1915, constituting the Special Fuel Council.

6. To the above prices are added the cost of transport, according to the commercial tariff, from the station of dispatch to that of destination, and other supplementary expenses, according to the tariff bill, including the charge for the storage of the coal from the time of the purchaser's notifying his consent to the purchase of the requisitioned fuel.

7. Payment for the requisitioned coal purchased by persons or institutions is to be made to the Commissioner, preferably immediately on delivery, but in any case not later than a month from the date of purchase.

8. A consignee who has failed to remove the purchased coal within the specified term receives from the Commissioner appointed by the Chairman of the Special Fuel Council the value of the coal as determined by Art. 5, but with a deduction of 5 copecks per pud, and a

further deduction for the storage of the coal from the date of its arrival at the station of destination to the date when a new purchaser agrees to buy it.

9. If the coal was to be paid for on delivery, the original consignee receives the value as provided by Art. 8, but with a deduction for all expenses and liabilities arising out of the transfer after requisition to another purchaser.

10. The difference between the sum received from the sale of the fuel and that repaid to the original consignee is credited by the Commissioner appointed by the Chairman of the Special Fuel Council to the Treasury, after deduction of the cost of transport and supplementary expenses, and also the sum to be paid on delivery,² which sums are paid into the cash office of the railway for which the fuel is intended, not later than a month from the day of delivery of the fuel.

(Signed) YARKOVSKY,
For the Chief of the Office of the Special Council.

A. VERNANDER,
Secretary.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1916, No. 10.)

² Cf. Articles 3 and 9.

APPENDIX III

DECREE of 7th March 1916 relating to the Inspectorate attached to the Commissioner appointed by the Chairman of the Special Council for supplying Donetz fuel to consumers throughout the Empire.

Art. 1. In pursuance of Art. 10, Paragraph 8, of the Law sanctioned by H. M., constituting the Special Council for the Discussion and Coördination of measures relating to fuel supply to railroads and to governmental and public institutions and undertakings working for national defense, an inspectorate attached to the Commissioner appointed by the Chairman of the said Fuel Council, is established during the existence of the said Council, for the purpose of ascertaining on the spot the actual condition and requirements of the coal-mining industry, and the fuel supply of mining and metallurgical undertakings, as well as of carrying out orders, given by the Chairman of the said Council and of supervising the execution of the rules and instructions issued by him.

Art. 2. The provisions of this Decree apply to all mining and metallurgical undertakings of the mining area of south and south-eastern Russia.

Art. 3. It is the duty of the Inspectorate:

(1) to ascertain the stocks of fuel in all mining and metallurgical undertakings and the amount of fuel liable to be delivered according to contracts to other undertakings or private persons, or to be required for their own needs; in case of necessity and with the permission of the Commissioner of the Chairman, data concerning the said contracts may be obtained direct from the trade books and documents;

(2) to examine and take over, in conformity with the Regulations of 6th November 1915, such stocks of fuel as are to be purchased by the State, and supervise their preservation according to these rules;

(3) to ascertain the commercial stability of the undertakings from which the State purchases fuel according to the Regulations of 6th November 1915;

(4) to ascertain the quality of the fuel produced or extracted by the undertakings;

(5) to ascertain and verify in the case of each undertaking, whether producing or extracting fuel, the following data to be submitted by it:

(a) the estimated production ;

(b) the consumption of fuel in the production of coke and briquettes and for the use of the mines, as well as for the needs of industrial concerns attached to the mines ;

(c) the average quantities of fuel consigned by the undertaking; the above data being subdivided according to quality and nature of fuel ;

(6) to ascertain the requirements of the mining and metallurgical undertakings.

Art. 4. The Chairman of the Special Fuel Council may also entrust the Inspectorate with the execution of other duties. (Art. 1.)

Art. 5. The Inspectorate is attached to the Commissioner appointed by the Chairman of the Special Council for supplying Donetz mineral fuel to consumers throughout the Empire, and consists of a Chief Inspector, his assistant, regional inspectors, their assistants, and engineer-controllers.

Art. 6. The Chief Inspector and his assistant are appointed by the Chairman of the Special Fuel Council.

Art. 7. The regional mining-engineers of the mining areas of south and southeastern Russia and their assistants are to perform the duties of regional inspectors and their assistants, a number of engineer-controllers being appointed at the disposal of the said regional inspectors. The necessary sums are issued from the funds of the Special Fuel Council to cover the salaries, traveling, and office expenses of the Inspectorate, as well as the additional remuneration of regional inspectors and their assistants.

Art. 8. Regional mining-engineers and their assistants are appointed, and are discharged from the fulfilment of the duties of regional inspectors and assistants, by the Commission of the Special Fuel Council in consultation with the respective chiefs of the Mining Boards.

Art. 9. Engineer-controllers are appointed and dismissed by the Commissioner of the Special Fuel Council upon the presentation of the Chief Inspector.

Art. 10. The Chief Inspector receives the necessary directions and

orders from the Commissioner or the Chairman of the Special Fuel Council. The regional inspectors and their assistants, in the performance of their duties as inspectors, act under the directions of the Chief Inspector.

Art. 11. In important questions concerning the Inspectorate, the Commissioner of the Special Fuel Council imparts to the Chiefs of Mining Boards such information as they may require.

Art. 12. After the regional inspectors have assumed office, a scheme for the distribution of the duties of the Inspectorate amongst them, their assistants, and the engineer-controllers will be drafted for the entire mining area. These schemes are sanctioned by the Commissioner of the Special Fuel Council with the assent of the Chiefs of the respective Mining Boards.

Art. 13. The organization of the office work of the regional inspectorate is entrusted to the regional inspector and his assistants.

Art. 14. Officials belonging to the Inspectorate receive from the Commissioner of the Special Fuel Council, for their identification, special certificates, signed and sealed, to be exhibited to the administrations of the undertakings inspected. (Art. 2.)

Art. 15. The managers, directors, and all officials of undertakings that extract and produce fuel are required to grant immediate access to their premises to officials belonging to the Inspectorate, to enable them to examine the undertakings and collect samples of the fuel extracted or produced from the mining and loading depots, as well as from railroad trucks loaded for dispatch. These officials are to be given every possible assistance and are to be shown, on request, the trade books and documents mentioned in Art. 1, Par. 3, of this Decree; they are to be given every necessary information bearing on the business of the undertaking.

Art. 16. These regulations are published for general information and enter into force from the day of their promulgation.

Art. 17. Any person found guilty of contravening or failing to comply with the demands of the members of the Inspectorate as prescribed in Art. 15 of this Decree, is responsible under Art. 19 of the Law of 17th August 1915 constituting the Special Council for the discussion and coördination of measures relating to the supply of fuel to railroads and to governmental and public institutions and undertakings working for national defense.

Art. 18. Complaints against the acts of members of the Inspectorate are brought before the Commissioner appointed by the Chairman of the Special Fuel Council, and complaints regarding the decisions of the latter to the Chairman of the Special Council for the supply of fuel.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1916, No. 13.)

APPENDIX IV

DECREE of the Chairman of the Special Council for discussion and coördination of measures relating to the supply of fuel to railways and to governmental and public institutions and undertakings, working for national defense. Dated 8th August 1916.

In pursuance of Art. 10, Par. 8, of the Law sanctioned by H. M. on 17th August 1915, constituting the Special Council for the discussion and coördination of measures relating to the supply of fuel to railroads and to governmental institutions and undertakings working for national defense, I hereby prescribe for the guidance of all concerned the following regulations with a view to preventing the yielding of an excessive residue of ash by Donetz coal, conveyed by rail.

1. Mine-owners and owners of coal depots at the stations of the Donetz Basin from which coal is consigned are prohibited from loading and dispatching by rail, without special permit from the Chief Commissioner appointed by the Chairman of the Special Fuel Council, yielding ash in excess of 20 per cent.

Remark. When through no fault of theirs the mine-owners and owners of the above-mentioned depots are unable to sort the coal, so as to attain the 20 per cent standard, they are to inform the Chief Commissioner of the Special Fuel Council.

2. Mine-owners and owners of the depots mentioned in Art. 1 are required to comply with the demands of members of the Inspectorate and to assist them in every way in carrying out tests of the quality of the coal and in collecting samples, such members of the Inspectorate being entrusted with the execution of the present Decree according to rules issued for this purpose by the Chairman of the Special Fuel Council.

3. Any person found guilty of contravening the demands of the members of the Inspectorate, made in conformity with the provisions of Art. 2 hereof, are responsible under Art. 19 of the Law of 17th August 1915 constituting the Special Fuel Council.

(Signed) V. PRILEZHAEV,

For the Chairman of the Special Fuel Council.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1916, No. 36.)

APPENDIX V

REGULATIONS concerning the State Trade Monopoly of Donetz mineral fuel, issued by the Provisional Government on 16th July 1917.

1. In pursuance of the Amendment to the Law of 17th August 1915, constituting the Special Fuel Council, confirmed on 22nd November 1915, the trade in hard mineral fuel of the Donetz Basin is declared to be the exclusive right of the State.

2. The conclusion of any direct contract between the producers and traders on the one hand and the consumers on the other for the disposal or transfer of hard mineral fuel from the Donetz Basin is prohibited.

3. The effect of any contract for the delivery of hard mineral fuel from the Donetz Basin, in respect of any quantity not yet delivered, is terminated from the day on which the present regulations come into force.

Remark. The effect of this article does not extend to agreements having the character of leases.

4. Advance payments, earnest-money, or deposits paid by the purchasers to the owners of mines, coke ovens, or briquette works in accordance with contract, are repayable, in so far as not the property of the said owners, within a month from the termination of the validity of the contract.

In case of the inability of the owners of the fuel-extracting or fuel-producing undertakings to return on the above conditions advance payments, earnest-money, or deposits to the purchasers, the obligation of repaying these advances, earnest-money, or deposits may on the same conditions be taken over by the State. Thereby the advance payments, earnest-money or deposits, due to the purchaser may be set off against the sums due by him to the State for fuel.

State expenditure occasioned by such transaction, is recovered by deductions from the payments due by the State on account of fuel supplied to the owners of undertakings extracting or producing fuel.

5. The stamp duty and the tax on deeds, paid upon the canceled

agreements, is repayable to the respective parties by the Treasury according to the date of the cancellation of the agreement.

The above stipulation does not apply where the mineral fuel to be delivered has been already handed over to the purchaser, or forwarded, or has already reached the place of destination.

6. Securities received by purchasers from contractors as guarantee for the delivery of fuel are returned by the purchasers to the contractors within a period of three months.

7. All fuel which at the date of the coming into force of the present Decree is stored at mining and loading depots, and all fuel which shall be extracted and produced in the Donetz Basin, in coal and anthracite mines, briquette works, and coke ovens, after the coming into force of the present Decree, with the exceptions indicated in Article 8, is placed at the disposal of the State, represented by the Chief Commissioner of the Special Fuel Council residing in Kharkov.

8. Are exempted from the effect of this Decree within the limits defined in Article 9:

(a) Fuel used by mine-owners for the working of mines, workshops, and engines, and for the needs of dwelling houses attached to the mines, as well as fuel delivered free or at a reduced price, according to lease agreements, to the owners of the leased mines.

(b) Fuel delivered to consumers direct from the pits by draught animals or by water.

(c) Coal intended for conversion into coke or briquettes in coke ovens or briquette factories belonging to the mine-owners.

Remark. The State will not take over coal intended to be converted into coke or briquettes, in ovens and factories belonging to other persons, to the order of mine-owners, provided that the ultimate product is to remain at the disposal of the mine-owners who gave the order.

(d) Coke produced by metallurgical works in ovens belonging to the works, from coal received from the State according to the present Decree and used for the needs of the works.

9. In all the cases enumerated in Article 8 the Chief Commissioner is entitled to fix the limits of domestic consumption of fuel (including coke according to the stipulation of Art. 8, Par. *d*), of the delivery of fuel to the owners of leased mines free or at reduced prices, of conversion into coke and briquettes, and of delivery by draught animals and by water.

These limits will be determined by a committee presided over by the Chief Commissioner.

10. Fuel taken over by the State is distributed among consumers by the Chief Commissioner and regional commissioners of the Special Fuel Council in conformity with the "Rules for the distribution of hard mineral fuel of the Donetz Basin amongst consumers."

11. In conformity with the plan of distribution of fuel among consumers drafted by competent bodies, the Chief Commissioner issues to undertakings extracting or producing fuel orders for the forwarding of fuel of a stated quality and amount to given addresses and at fixed prices.

The system of issuing orders is primarily determined by an instruction delivered to the Chief Commissioner; the scheme for the issue of orders to the mines does not enter into force until it has been examined by a Conference presided over by the Chief Commissioner. In conformity with the orders issued, the Kharkov Metallurgical Committee prepares from time to time lists of wagons supplied for loading, and schemes for the transport of fuel from the Donetz Basin for definite periods of time.

12. The Chief Commissioner takes over the fuel from the undertakings which extract and produce it, in conformity with the rules contained in Appendix I to this Decree. The transport of fuel to the loading depots and its loading into wagons is carried out by the above undertakings. Special rules may be settled by agreement between the Chairman of the Special Fuel Council and the heads of the respective Departments or boards for the taking over of fuel supplied to government departments or institutions.

13. Small pits may deliver their fuel to the State through the medium of persons or societies engaged in the stocking and transport of Donetz mineral fuel, and possessing for this purpose depots, owned or leased by them, at transport bases.

The owners of such depots must be registered by the Chief Commissioner and are subject to the same rules as the pits delivering direct, as regards the delivery of fuel to the State, payment, and other matters.

The form of registration is determined by the Chief Commissioner.

14. The Chairman of the Special Fuel Council fixes the prices, on the basis of which accounts are settled between the consumers and the State for fuel delivered to the former, in accordance with the

schedule for various kinds of fuel approved by the Chairman and based on the cost of production; the methods for calculating the latter are given in Article 28.

15. At the settlement of accounts between the State and the owners of mines, coke ovens, and briquette works for the fuel delivered, an equal percentage is retained from the sale price upon each pud of fuel to cover the expenditure incurred by the State in respect of its monopoly of the trade in Donetz fuel, including the expenditure on additional payments above the average price made to businesses operating under particularly difficult technical conditions of production (Art. 19 of the Regulations). This rebate must not exceed 3 per cent of the fixed sale prices. In the event of the formation of a reserve fund out of such rebates, such reserve fund is to be placed at the disposal of the Minister for Commerce and Industry for the purpose of financing the mining industry.

16. The settlement of accounts between the Chief Commissioner and the owners of businesses extracting and producing fuel on the one hand, and the consumers of fuel and the Chief Commissioner on the other, is effected according to special rules for the settlement of accounts.

17. As an exception from the rules referred to in Articles 12 and 16, the Chief Commissioner is authorized to enter into agreements with individual owners of mines, coke ovens, and briquette factories, and with individual consumers of fuel, concerning the method of delivery, terms of payment for the fuel delivered or received in advance on account of the orders given, or the receipt of payment in advance or earnest-money from the consumers, as well as concerning the delivery by the pits of fuel of special qualities not included in the scale of categories of fuel, and the payment of premiums for such special qualities. In these cases the premiums are added to the sale prices on the delivery of coal to the consumers.

Advance payments to pits may be made by the Chief Commissioner only in the form of a percentage and to an extent not exceeding 50 per cent of the value of the delivery, as determined for the following month according to the order.

The interest upon the advance payments is fixed by the Chairman of the Special Fuel Council. The consumers may be required to make advance payments, the amount of which is determined by the Chief Commissioner.

18. Conditions for the settlement of accounts with the Chief Commissioner, for fuel delivered to State departments and institutions, may be determined by special agreements between the Minister for Commerce and Industry, the Minister of Finance, the State Controller, and the heads of the respective departments and supplying boards.

19. The Chief Commissioner is empowered to grant additional payments above the prices estimated according to Art. 15, to such undertakings as have been placed in particularly difficult conditions of production. The additional payments are made out of the sums retained under the provisions of Art. 15.

20. The lists of undertakings to which the Chief Commissioner intends to grant the additional payments provided for by Art. 19, showing the amount of the proposed additions, are to be examined and confirmed by a committee constituted under the Chief Commissioner, and consisting of seven members elected by the coal and anthracite-owners, and one member elected by the Regional Council of Workmen's Deputies. The Permanent Council of the Congress of Mine-Owners of South Russia is entrusted with the organization of elections of the above persons.

Lists of undertakings entitled to additional payments are examined every half-year.

If the Chief Commissioner disagrees with the decisions of the Committee, the question is brought before the Chairman of the Special Fuel Council.

21. The conditions of settlement of accounts with the pits for fuel extracted, but not removed for various reasons, such as the absence of the Chief Commissioner's orders, or nonarrival of wagons due upon orders issued, as also the conditions of the storage and control of such fuel by the pits, are to be determined by special rules.

22. Owners of mining undertakings are bound to communicate to the Chief Commissioner all data concerning the extraction or production, the quality and kinds of fuel, its consumption and cost price, as well as all information that may be required by the Chief Commissioner for compliance with the present Decree.

All data are to be reported in a form established by the Chief Commissioner and at dates appointed by him.

In order to check the data communicated to him, the Chief Commissioner may examine the businesses and all their accounts, as well

as trade books and other documents bearing upon the information to be checked, subject to the strict maintenance of the commercial secrecy of the business.

23. An Arbitration Commission, consisting of a Chairman, appointed by the Minister of Justice, one member elected by the Special Fuel Council from among the consumers of the Donetz Basin and a second member, elected by the Permanent Council of the Congress of the Mine-Owners of South Russia, is constituted in Khar'kov in virtue of the Amendment, confirmed by the Provisional Government, to the Law of 17th August 1915 constituting the Special Fuel Council; this Commission is charged with the settlement of disputes which may arise in the carrying out of these regulations between the producers of fuel and the Chief Commissioner and between the consumers of fuel and the Chief Commissioner.

The Chairman and members have each a deputy, appointed and elected by the same body. The Chairman and the members of the Arbitration Commission, as well as their deputies, receive salaries from the Government, the amount of which for the Chairman and his deputy are fixed by the Minister for Commerce and Industry.

24. Complaints by consumers and producers against the acts of the Chief Commissioner are lodged with the Arbitration Commission within a period of three months.

25. The Arbitration Commission is also required to settle disputes which may arise in connection with the provision of Articles 3, 4, and 6 concerning the termination of the effect of contracts concluded previous to the issue of this Decree.

26. Local Arbitration Commissions consisting of five persons, namely, a chairman, the regional inspector belonging to the Inspectorate attached to the Chief Commissioner, two persons elected by the exporters of the region, one representative of the local railways, and one representative elected by the South Russian Society for the Inspection of Steam Boilers, are established for the settlement of local disputes which may occur when fuel is delivered by the pits.

The area of activity, number, and competence of local Arbitration Commissions, as well as the order of procedure and amount of the subsidies granted to them by the Government, are determined by the Chairman of the Special Fuel Council.

Appeals against the decisions of Regional Arbitration Commis-

sions may be lodged within a fortnight with the general Arbitration Commission (Art. 23).

Remark. In cases concerning delivery of coke, the representative of the railways on the Commission is replaced by a representative of the metallurgical industry, elected by the metallurgical section of the Permanent Council of the Congress of Mine-Owners of South Russia.

27. A Conference on questions concerning the trade monopoly of the Donetz fuel is established under the chairmanship of the Chief Commissioner and consists of:

(1) The Chairman of the Kharkov Mining Committee.

(2) One representative respectively for: the State railways, the railway companies, the Admiralty, the Central War Industries Committee, the All-Russian Zemstvos and Town Unions, the Regional Council of Workmen's Deputies, all the shipping companies of the Black and Azov seas, the Dnieper, the Don, and North Donetz.

(3) Six persons, elected by the Permanent Council of the Congress of Mine-Owners of South Russia, amongst whom must be one representative of the metallurgical industry.

In addition to these the Chief Commissioner may invite individual experts with a consultative voice to the meetings of the Conference.

The Conference examines all questions submitted by the Chief Commissioner concerning the trade monopoly of the Donetz fuel, as well as those raised by individual members; in addition the Conference:

(1) fixes the limits referred to in Art. 9;

(2) sanctions the general scheme for the issue of orders for the delivery of fuel in conformity with Art. 10.

Differences of opinion between the Chief Commissioner and the Conference upon questions dealing with the fixation of the said limits and the sanctioning of the general scheme for the issue of orders, are settled by the Chairman of the Special Fuel Council.

28. In order to ascertain the elements of the cost price of the extraction and production of fuel and to draw up sale prices, a Committee is constituted in Kharkov, under the chairmanship of a person appointed by the Chairman of the Special Council, and consisting of one member elected by the Council of the Ekaterinoslav Mining Institute, one member elected by the Kharkov Branch of the Engineering Society, one member appointed by the Chief Commis-

sioner for the supply of metals and fuel, and three members elected by the Permanent Council of the Congress of the Mine-Owners of South Russia.

29. The Inspectorate of the Donetz Basin, acting under special Regulations, is charged with the general supervision over the production and loading of fuel, the collection of necessary information, and the carrying out of instructions of the Chief Commissioner.

The staff of the Inspectorate, if necessary, is reinforced by a staff of controllers.

30. The establishment and duties of the department of the Chief Commissioner for the monopoly are determined by an Instruction issued by the Minister for Commerce and Industry.

31. Anyone found guilty of contravening or failing to comply with the provisions of Art. 2 of these Regulations, or of failing to submit to the Chief Commissioner information demanded by him in virtue of Art. 22 of this Decree, or refusing to allow the inspection of his business and its trade books and documents, is to be held accountable under Art. 19 of the Law of 17th August 1915 constituting the Special Fuel Council.

32. The order and date of the coming into force of the present Regulations are determined by the Minister for Commerce and Industry and published for general information.

33. Notice of the withdrawal of the present Regulations will be published in the authorized manner six months in advance.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1917, No. 44.)

APPENDIX VI

REGULATIONS of 17th December 1915 relating to the Committees for the control of the Cotton and Wool Industries.

On 17th December 1915 His Majesty the Emperor, in conformity with the Regulations made by the Council of Ministers sanctioned by him on 7th July 1915¹ as to the adoption of certain measures for regulating the supply of the cotton mills and cloth factories with raw materials (*Sobranie Uzakoneni*, Art. 1594), has decreed in accordance with Art. 87 of the Fundamental Laws as follows:

I. Art. 2 of the said Regulations shall read as follows:

2. The Committees, mentioned in the previous Article 1, are authorized to:

(a) determine the maximum prices at which cotton and wool, cotton and wool yarn, and cotton and wool fabrics, may be sold;

(b) ascertain the output of the undertakings and their stocks of raw materials and manufactured goods, as well as the possibility of increasing their output and adapting the works for the manufacture of goods of the kind required by the Departments of War and of the Navy;

(c) ascertain the amount of goods required by the Departments of War and of the Navy which each undertaking may produce;

(d) determine the order in which the orders given by the Departments of War and of the Navy shall be executed;

(e) ascertain the prices to be fixed for such orders;

(f) distribute the stocks of cotton and wool amongst the factories, taking into consideration in the first place the orders to meet the needs of the army and navy;

(g) order the compulsory sale of cotton and wool, and cotton and woolen yarn, to factories executing orders for the Departments of War and of the Navy, at prices established in conformity with Art. 5; and also purchase, where necessary, cotton and wool, so that all

¹ For the full text of these Regulations, see S. N. Tretiakov, *The Textile Industry in Russia during the War*, in this series of the *Economic and Social History of the World War*.

consignments, being addressed to the appropriate committee, may be distributed by the latter amongst the factories ;

(h) consider questions relating to the requisition of cotton, wool, and woollen yarn, and cotton and woollen fabrics, and the sequestration of those cotton mills and wool factories the owners of which evade or refuse to comply with the orders received upon certain conditions and for a determined amount for the Departments of War and of the Navy, and submit proposals for carrying on such sequestered undertakings ;

(i) supervise the execution of the Regulations relating to the sale of cotton, wool, yarn, and the corresponding fabrics at prices not exceeding the maximum prices, as well as the execution of orders received by the undertakings from the Departments of War and of the Navy ;

(j) delegate, on special request, their representatives to sit upon Regional Committees and other institutions dealing with the transport of goods by rail, so that these representatives may have a consultative voice on such committees and institutions ;

(k) acquire rights of property, including the right of ownership of real estate, conclude agreements, sue and defend in courts of law ; and

(l) fix a special tax upon cotton and wool, payable by both sellers and purchasers, at a rate calculated to defray the expenses incurred by the Committees in the performance of the duties imposed on them by these Regulations.

Further details regarding the duties, powers, and composition of the Committees are determined by their Statutes, confirmed by the Minister of Commerce and Industry in consultation with the Minister of War, whereby these heads of Departments establish the dates at which the Committees are to enter on their duties.

II. The said Regulations shall be supplemented by Articles 3 and 4 as follows :

3. The decisions of the Committees as to matters mentioned in Art. 2, Par. *d*, are confirmed by the Minister of War, and those mentioned in paragraphs *c* and *e*, by the Minister of Commerce and Industry, if no objection was raised by representatives of departments when these questions were examined by the Committees. If, however, objections were raised, the question is settled by agree-

ment between the Minister and the head of the Department concerned.

4. The Committee for the control of the woolen industry, established in conformity with Art. 1 is authorized, in addition to the powers enumerated in Art. 2, to require wool-washing works to wash in the first place the wool belonging to purveyors of the Departments of War and of the Navy, and to establish the order in which wool shall be washed by the works.

III. Articles 3 and 4 of the said Regulations shall be replaced by Art. 5 as follows:

5. The Minister of Commerce and Industry is empowered:

(a) to fix the prices at which the sale of cotton and wool, cotton and woolen yarn, and cotton and woolen fabrics, is permitted;

(b) to order special and general requisitions of cotton, wool, yarn, and corresponding fabrics;

(c) to sequester cotton and wool factories, and determine the method of carrying on the sequestered undertakings;

(d) to demand directly, or through the aforesaid (Art. 1) Committees, from private persons, societies, or banks trading in cotton or wool, as well as from those owning cotton mills or wool factories, information as to stocks and amount of consumption of cotton, wool, cotton and woolen yarn, and cotton and wool fabrics; and also information concerning the output and activity of the cotton and wool factories; and to check this information by demanding trade books and other documents dealing with the matter.

(e) to declare null and void any contract, which, on comparison with the established maximum prices, is found to be inadmissible.

IV. Articles 5 and 6 of the said Regulations shall be replaced by Articles 6 and 7 as follows:

6. Persons and societies having, previous to the issue of this Regulation, undertaken the obligation of supplying cotton and wool, if unable to meet their liabilities, are exempt from any responsibility arising out of their being required to satisfy demands based on the present Regulations.

7. Any person found guilty of concealing stocks of cotton or wool, or of failing to give information, or giving wrong information, when information is demanded in accordance with the provisions of Art. 5, Par. *d*, is liable to imprisonment for a term not exceeding one

year and four months. Any person found guilty of contravening orders issued in pursuance of these Regulations and any person conspiring to evade these Regulations, is liable to the same punishment.

Cases arising under this Article are tried by the Regional Courts of Law.

(Ukazatel Pravitelstvennikh Rasporyazheni, 1916, No. 2.)

APPENDIX VII

REGULATIONS of 17th October 1916 concerning the Committees for the control of the Cotton and Wool Industries.

By resolution of the Council of Ministers sanctioned by H. M. on 17th October 1916, in virtue of Art. 87 of the Fundamental Laws (*Svod Zakonov*, vol. I, part I, ed. 1906), amending the Regulations of the Council of Ministers sanctioned by H. M. on 7th July and 17th December 1915 relating to certain measures for the improvement of the supply of raw materials to cotton mills and wool factories (*Sobranie Uzakoneni*, 1915, Art. 1594) and to amendments to the same (*Sobranie Uzakoneni*, 1916, Art. 4), it has been enacted as follows:

I. 1. The Special Committee for the Cotton and Wool Industries are authorized:

(a) to distribute amongst traders in textiles, for further sale to private consumers, such stocks of cotton and wool fabrics as are not required by the appropriate authorities for the needs of the army and navy;

(b) to organize a compulsory sale of the said stocks of fabrics on the open market at prices fixed in accordance with the Regulations relating to the supply of raw materials to cotton mills and wool factories;

(c) to establish the order in which cotton and woollen fabrics shall be sold wholesale and retail to private purchasers, and to prohibit the sale of yarn, fabrics, and manufactured goods to particular categories of persons.

2. The decisions of the Committees in the matters enumerated in Art. 1 are confirmed by the Minister of Commerce and Industry.

3. All persons and companies that have contracted, previous to the issue of the present Regulations to deliver cotton or woollen goods, if unable to execute their contracts in consequence of being required to comply with demands under Art. 1 of these Regulations, are released from any responsibility.

4. The Minister of Commerce and Industry in consultation with the Minister of Finance may:

(a) prohibit the grant of credits by credit institutions, firms, and

private persons, secured on cotton and woolen fabrics or on trade documents for such goods;

(b) declare invalid transactions by which credits are granted on the above-mentioned goods or consignments of such goods, which would be incompatible with the fixed maximum prices or with the decisions of the Committee as to the supply of fabrics to private purchasers.

5. The Minister of Commerce and Industry may organize branches of the Committees. The composition of these branches, method of election, and appointment of their members, their duties, the areas in which they shall operate, and their relation to the Committees, as well as other details of their functions, are determined by the Minister of Commerce and Industry after examination of these questions in the committees concerned.

6. A special tax may be levied on raw materials, semimanufactured and manufactured textile goods. The amount of this tax and method of levying it are determined by the Minister of Commerce and Industry upon the recommendation of the Committee.

7. Any person found guilty of:

(a) concealing stocks of cotton or wool fabrics in order to evade the instructions as to the distribution of such stocks amongst traders, their compulsory sale to private purchasers, or as to the order in which the wholesale or retail sale of fabrics to private purchasers shall be effected, or

(b) contravening the Decree prohibiting the grant of credits secured on cotton or woolen fabrics or trade documents for such goods;

is liable to imprisonment for a term from two months to one year and four months.

Persons charged with the offenses enumerated in this Article are tried by the Regional Courts of Law.

II. The Minister of Commerce and Industry may, in development of the provisions of Section I of the present Regulations, relating to the supply of raw materials to cotton mills and wool factories, issue ordinances regulating the cotton and wool industry and trade.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1916, No. 44.)

APPENDIX VIII

ORDINANCE of 15th November 1915 relating to the registration of stocks of wool.

In virtue of Art. 2, Paragraph *b*, and Art. 4, Paragraph *a*, of the Regulations of the Council of Ministers relating to certain measures designed to facilitate the supply of raw materials to cotton mills and wool factories, confirmed by H. M. on 7th July 1915 (*Sobranie Uzakoneni i Rasporyazheni Pravitelstva*, 1915, Art. 1594), I hereby make the following Ordinance supplementary to the Ordinance of 14th September 1915:

I. Owners of merino and *tzigei*¹ wool, excepting those mentioned in Section III, and owners of wool-washing factories, are required, upon the issue of this Ordinance, to inform the Fine Cloth Section of the Committee for the Wool Industry (Moscow, Novaya Ploshchad 6) of all stocks of unwashed and washed merino and *tzigei* wool which, previous to the issue of this Ordinance, had not been sold to purveyors to the War Department.

II. Owners of categories of wool mentioned in Section I, who have disposed of their wool previous to the issue of this Ordinance, are required, on the demand of the Fine Cloth Section, to inform this Section of the date of the sale, the name of the purchaser, and the address to which the goods have been forwarded.

III. Owners of worsted and carded wool-spinning mills, and of all other wool-working mills, which are not entirely engaged in executing orders for the War Department and which have stocks of merino or *tzigei* wool of home production, are required to inform the Fine Cloth Section of their stocks of the said sorts of wool on the demand of the said Section.

IV. Owners of merino or *tzigei* wool unsold to purveyors to the War Department, with the exception of such as are mentioned in Section III, are required to forward their wool of the said categories to wool-washing factories not later than 1st January 1916. Wool which has not been forwarded by the above date to a wool-washing

¹ A local breed of sheep producing wool inferior to that of the merino, but fit for manufacturing worsted yarns. (Translator's note.)

factory is distributed by order of the Fine Cloth Section amongst factories executing orders for the army and navy, at prices not exceeding the maximum prices.

V. In cases of shortage of wool at factories working for the army and navy, the Fine Cloth Section of the Committee for the Wool Industry may distribute among these factories stocks of merino or *tzigci* wool belonging to the owners of mills mentioned in Section III.

Any person found guilty of contravening or failing to comply with the provisions of this Ordinance, is liable to imprisonment for a maximum period of one year and four months, in conformity with Art. 6 of the Regulations of the Council of Ministers, confirmed by H. M. on 7th July 1915.

(Signed)

PRINCE SHAKHOVSKOY,
Minister of Commerce and Industry.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1915, No. 46.)

APPENDIX IX

ORDINANCE of 4th April 1916 concerning trade in wool.

In virtue of the Regulations concerning the supply of raw materials to cotton mills and wool factories, confirmed by H. M. on 7th July 1915 (*Sobranie Uzakoneni i Rasporyazheni Pravitelstva*, 1915, Art. 1594), as modified and amended by the Regulations of the Council of Ministers relating to certain modifications and amendments of the same Regulations (*Sobranie Uzakoneni i Rasporyazheni Pravitelstva*, 1916, Art. 4), I hereby order as follows:

I. The right to purchase coarse wool is granted to the owners of cloth factories, wool-spinning mills, and other wool-working mills, working solely for the needs of national defense, as well as to private persons and firms purchasing wool on commission on behalf of the owners of such undertakings.

Remark. Owners of wool-working mills not working, or only partially working for national defense, may purchase wool only on a written permit issued specially for each purchase by the Committee for the Wool Industry.

II. Owners of the wool-working mills referred to in Section I may commission persons and firms engaged in the wool trade, and owners of factories and firms concerned in the wool industry, to purchase on their behalf the wool needed by them, informing them of the quantity of wool to be purchased, the area where purchase is to be effected, and the amount of commission to be paid, which commission may not exceed 60 copecks per pud of wool purchased.

Except in the case of wool purchased as above, the purchase of wool is authorized only direct from sheep-breeders and in small quantities not exceeding 200 puds.

III. When selling wool, sellers are not required to demand from private purchasers or firms proof of their right to purchase wool according to this ordinance.

IV. A stock of wool on 1st April not exceeding a half-year's consumption of the wool-working mills referred to in Section I is to be considered as the normal stock of wool for such mills, working solely for national defense. In addition to this stock, every such mill may

acquire up to 1st April of the following year a quantity of wool amounting to 125 per cent of its yearly consumption.

V. Private persons and firms engaged in the wool trade may acquire, in addition to the amount of wool which they have been commissioned to buy under the terms of Section II, a quantity of wool not exceeding 25 per cent of the quantity purchased on commission; provided that the traders in wool are required to declare the amount of these additional purchases to the Committee for the Wool Industry not later than 1st October, with a view to the distribution, if necessary, of this surplus among the undertakings referred to in Section I. The stipulation contained in Section II as regards the commission payable must be taken into consideration by the Committee at the time of the distribution.

When no answer is received from the Committee for the Wool Industry to the declaration made under this Section of the additional stock purchased, within a month from the day of the reception of such declaration by the Committee, the trader may dispose of the wool at his discretion.

VI. Manufacturers and traders are required to inform the Committee for the Wool Industry of their total stocks of coarse wool available on 1st April, within one month from the date of issue of this ordinance.

VII. All manufacturers producing Russian cloth are required to submit to the Committee for the Wool Industry within one month from the issue of this ordinance an estimate of the quantity of wool required by them in order to fulfil their contracts for the delivery of cloths over a period of a year, dating from 1st April of the current year.

VIII. The present Ordinance does not apply to wool imported from Mongolia, China, Persia, and Transcaucasia (the *tushin* and *donma* wool), nor to goat's wool and camel's hair.

IX. Any person acting in contravention of or failing to comply with the provisions of the present ordinance, or conspiring to evade it, is liable to imprisonment for a term not exceeding one year and four months, in conformity with Art. 7 of the Regulations for the Supply of raw materials to cotton mills and wool factories.

(Signed) PRINCE SHAKHOVSKOY,
Minister of Commerce and Industry.

(*Ukazatel Pravitelstvennikh Rasporjazheni*, 1916, No. 16.)

APPENDIX X

ORDINANCE of the Minister of Commerce and Industry, dated 29th April 1916, concerning the registration and distribution of wool.

In exercise of the powers conferred upon me by the Regulations, sanctioned by H. M. on 7th July 1915 relating to the supply of raw materials to cotton mills and wool factories, as amended by the Regulations of the Council of Ministers sanctioned by H. M. on 17th December 1915 (*Sobranie Uzakoneni i Rasporyazheni Pravitelstva*, 1915, Art. 1594, and 1916, Art. 4), I hereby order as follows:

I. All merino, *tzigei*,¹ and half-breed wools of the 1916 season are to be used for the manufacture of army cloth.

II. The following maximum prices are established for the period from 1st May 1916 to 1st May 1917 for the sale and purchase of the different grades of wool, subject to their having been washed in the best steam-washing factories, these prices to include the cost of washing and all other expenses connected with the transport and reception of wool:

Per pud f.o.b. washing factory; weight according to the original invoice:

	<i>Rubles</i>
Merino wool of normal quality	85.
<i>Tzigei</i> wool: (a) of Bessarabian origin of normal quality	63.
(b) of other regions	56.

Remark 1. The price of merino wool stipulated in this (II) Section is fixed subject to its being free from burrs and being pure merino without any admixture of any other grades of wool. If burrs are present in the wool, a reduction is made in the price as follows: 2 rubles per pud of washed wool containing a small quantity of burrs, and up to 5 rubles per pud of washed wool where burrs are numerous.

Remark 2. When impure wool is purchased, locks, remnants, and breeches are taken into account as follows: locks and remnants of the first grade—two puds are taken as equivalent to one, remnants of

¹ See p. 299, n. 1.

the second grade and small breeches—three puds as equivalent to one pud.

Remark 3. Prices of such grades of wool as are not mentioned in Section II are fixed by the Arbitration Commission, as stipulated in Section IX of this ordinance, in conformity with the maximum prices established in Section II.

III. The right to purchase wool in virtue of Section I belongs exclusively to manufacturers supplying cloths to the army, or to persons and firms commissioned by them. The right of purchase is attested by permits bearing the signature of the Chairman of the Fine Cloth Section of the Committee for the Wool Industry.

Remark. Sheep-breeders possessing stocks of wool not exceeding 500 puds may dispose of this wool to buyers other than those mentioned in the present (Section III), subject to the latter being provided by the Fine Cloth Section with special permits for purchasing wool. Such permits are granted to persons upon the recommendation of three sheep-breeders possessing each a stock of wool not under 1,000 puds. The signatures of these persons must be duly certified. The above-mentioned buyers are required to supply information to the Committee for the Wool Industry regarding the amount of wool purchased by them, and as to the wool-washing factory to which the wool purchased has been consigned. This wool is at the disposal of the Committee for the Wool Industry, which settles payment for it according to the amount of washed wool.

IV. In the case of each manufacturer supplying the State, the amount of the raw wool that he is entitled to purchase is determined by his share in the supply of military cloth from 1st July 1916 to 1st January 1917 and according to a scale fixed by the Administration of the Army Supply Department. The stocks of merino and *tzigai* wool in European and Asiatic Russia subject to a preliminary distribution are estimated at 1,020,000 puds, of which total 800,000 puds are intended for the manufacturers of military cloth, 200,000 puds for the wool-spinning mills working for national defense, and 20,000 puds for manufacturers of semi-wool goods. If the actual stocks of wool exceed 1,020,000 puds, the surplus is sent to washing factories and is distributed by the Fine Cloth Section among manufacturers supplying military cloth, in proportion to contracts received, wool-spinning mills have no share in this surplus.

V. Any sheep-breeder, disagreeing with a purchaser as to the price offered him for unwashed wool, or the maximum price for clean wool, may send his wool to be washed to one of the wool-washing factories controlled by the Army Supply Department, having previously notified the Fine Cloth Section of his intention, and be paid according to the scale of fixed prices, subject to any alterations, which may have been introduced by the Arbitration Commission. This right is retained by sheep-breeders until 15th August 1916, after which date the wool which has not been freely surrendered to the washeries, nor registered for washing, is liable to compulsory expropriation; in consequence of which, on settlement for it, five rubles are withheld on each pud in favor of the Committee for the Wool Industry as a tax, as provided for in Art. 2, Par. *m*, Law of 7th July 1915 (*Sobranie Uzakoneni*, Art. 1594). Wool, handed over to washing factories, under compulsory expropriation is distributed amongst manufacturers by the Fine Cloth Section, but is washed after the completion of all registered washings.

Remark. By order of the Fine Cloth Section stocks of unwashed wool under 500 puds may for washing purposes be amalgamated in the wool-washing factories, so as to form larger stocks, not exceeding, however, 2,000 puds; in that event payment to the owners is effected upon the basis of the average yield of washed wool from these stocks of unwashed wool.

VI. The cost of the washing of wool is fixed according to the Order of 20th April 1916.

VII. The price of wool, as established by Section II, includes the commissions of private dealers and firms purchasing wool on behalf of manufacturers supplying the State. The amount of this commission is not to exceed 5 per cent of the fixed price provided the risk of miscalculation in the estimate of the yield of the wool after washing is entirely borne by the said persons and firms, who are bound to deliver the wool bought by them to their principals at the fixed price, subject to such modifications as may be introduced by the Arbitration Commission.

VIII. The risk referred to in Section VII of miscalculation in the estimate of the yield of wool after washing is likewise borne by manufacturers purchasing wool on their own account, and by wool-spinning mills, subject to the following conditions: any lot of unwashed wool not less than five hundred puds, concerning the overpayment

for which in its unwashed state by this category of buyers there shall be lodged with the Fine Cloth Section a declaration duly signed by three persons belonging to the group of manufacturers supplying the State, members of the Fine Cloth Section or persons and firms entrusted by the above manufacturers with the right to purchase wool, is liable to be washed at one of the washeries controlled by the Army Supply Department at the choice of the Fine Cloth Section. If this test washing confirms the overpayment for the unwashed wool, the purchaser pays 50 per cent of the established excess of the cost of the washed wool over the maximum price (subject to such modifications as may have been introduced by the Commission for Arbitration), to the Committee for the Wool Industry, by way of a tax, as provided for by Art. 2, Par. *m*, Law of 7th July 1915 (*Sobranie Uzakoneni*, Art. 1594). If the protest proves to have been groundless, each of the persons who has signed it pays to the said Committee for the test washing one ruble for each pud of washed wool, on account of the above-mentioned tax.

IX. All disputes, arising between sellers and purchasers as to the quality of the washed wool supplied, are settled by the Arbitration Commission attached to the Fine Cloth Section.

The Arbitration Commission is presided over by the Chief Factory Inspector of the Moscow province, and consists of two representatives of the wool traders, elected by the Moscow Exchange Committee, two manufacturers, elected by the Association of Cloth Manufacturers, and four sheep-breeders, elected according to rules laid down by the Minister of Agriculture.

X. All contracts, even provisional, concluded for the delivery of wool for the season of 1916 are declared null and void, and it is prohibited to renew agreements concluded after 31st December 1915 between the same persons (even by proxy). In the case of contracts concluded previous to 31st December 1915, if no new agreement is concluded by mutual consent, the purchaser is entitled to the return of any money paid in advance.

XI. All sheep-breeders and manufacturers and purchasers of wool are required to communicate to the Committee for the Wool Industry on its demand, within ten days from the receipt of the said demand, information concerning agreements concluded by them for the purchase and sale of wool.

Any person found guilty of contravening the provisions of the present Ordinance is liable to imprisonment for a term not exceeding one year and four months, in conformity with Art. 7 of the Regulations for the supply of raw materials to cotton mills and wool factories.

(*Torgovo-Promishlennaya Gazeta*, 8th May 1916.)

APPENDIX XI

ORDINANCE dated 29th July 1916, relating to the sale of textiles to private purchasers.

In pursuance of the Regulations sanctioned by H. M. on 7th July 1915, relating to the supply of raw materials to cotton mills and wool factories, as amended by the Regulations of the Council of Ministers, sanctioned by H. M. on 17th December 1915 (*Sobranie Uzakoneni i Rasporyazheni*, 1915, Art. 1594, and 1916, Art. 4), I hereby direct as follows:

I. The wholesale trade in coarse cotton fabrics to private purchasers is prohibited, exception to this regulation being made in favor of such persons and undertakings as:

(a) independently in their own factories apply a finishing process to fabrics;

(b) apply a finishing process to the coarse fabrics in factories not owned by them, provided these persons or undertakings were engaged upon this work in the same area before the 1st August 1914;

(c) employ coarse fabrics for technical purposes; or,

(d) carry on a retail sale in these coarse fabrics in their own permanent trading establishments, if such trade was carried on before the 1st August 1914.

II. The wholesale trade in separate lots of finished fabrics to private purchasers is prohibited, exception to this regulation being made for such persons and undertakings as:

(a) independently trade in the said finished fabrics in their own permanent trading establishments, if they traded in the same area before the 1st August 1914; or,

(b) trade in finished fabrics through coöperative, municipal, or factory stores.

III. Any person found guilty of contravening the provisions of the present Ordinance or of conspiring to evade this Ordinance, is liable to imprisonment for a term not exceeding one year and four months in virtue of Art. 7 of the Regulations for the supply of raw materials to cotton mills and wool factories.

(Signed) PRINCE SHAKOVSKOY,

Minister of Commerce and Industry.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1916, No. 33.)

APPENDIX XII

ORDINANCE of 2nd December 1916, of the Minister of Commerce and Industry, relating to the centralization of dealings in cotton.

I. The following regulations relate to the supply to cotton mills of Russian cotton of the season of 1916, and to the conclusion and execution of contracts for the sale and purchase of the said cotton:

(1) Private persons, associations, or institutions concerned in the trade in pure cotton fabrics, or as middlemen in this trade, and owners (managers or directors) of cotton mills, purchasing cotton or cotton fiber, are required:

(a) to give the Committee for the control of the supply of raw materials to cotton mills (Moscow, Varvorskaya Place, Dyclovoy Dvor, No. 5), information as to their stocks of fiber of the 1916 season, and

(b) to sell the given stocks exclusively to persons and firms indicated by the Committee and at prices not above those fixed by the Ordinance of the Minister of Commerce and Industry of 20th November 1916.

(2) The above-mentioned contracts for the sale of cotton fiber stored in the manufacturing areas, and contracts for the transport, forwarding, or delivery of fiber from the cotton-growing areas to the manufacturing centers, may be concluded only in conformity with special orders for each case from the Committee for the control of the supply of raw materials to cotton mills, whereby the parties to the contract are required to observe the rules laid down in Section I, Articles 3 to 11 of the present Ordinance.

(3) All contracts for the transport, forwarding, or delivery of fiber, to the manufacturing centers are to be concluded at the exchange price of the date of the railway bill of lading, and the seller may demand from the purchaser, unless otherwise stipulated in the contract, the payment of 75 per cent of the amount of the purchase price upon the handing over of the duplicate of the bill of lading, and 25 per cent upon the delivery of the goods to the purchaser. Interest at the rate of 6½ per cent per annum in favor of the seller is calculated upon the sum remaining due by the purchaser, exclu-

sive of the amount of the freight and of the war tax (if these have been paid by the purchaser) from the date of the bill of lading to the day of final settlement (the eighth day after the delivery of goods).

(4) Where Russian cotton of the 1916 season is sold on the spot, in central Asia and the Caucasus, the exchange price of the day of delivery of the cotton is taken as basis of payment, and the purchaser is entitled to interest, ranging from 8 to 12 per cent per annum on all advances, deposits, and other sums paid by him to the seller under the contract, from the day of the payment to the day of the final settlement.

(5) Where stocks of Russian cotton of the 1916 season are sold in the manufacturing area, the exchange price adopted is in accordance with the rules of the Cotton Committee of the Moscow Exchange, whereby the purchaser pays to the seller interest for 75 days upon the price of cotton f.o.b. the manufacturing center at 6½ per cent per annum as indemnity for the loss of interest during the period of transport of the cotton.

(6) Where Russian cotton of the 1916 season is purchased f.o.b. the manufacturing area with prepayment of an advance, the purchaser is entitled to interest at 5½-12 per cent per annum upon the sum advanced from the day of the payment to that of the quotation of the exchange price.

(7) In the case of contracts concluded in the manufacturing area, but for delivery on the spot, *i.e.*, in central Asia or the Caucasus, only the sale f.o.b. railroad is permitted, with a charge not exceeding 5 copecks per pud, supplementary to the maximum prices of cotton on the spot.

(8) No addition to the maximum prices of cotton, as established by the Ordinance of 20th November 1916, is permitted for special qualities of the fiber (strength, length, special trade-marks, etc.).

(9) In the case of purchases of Russian cotton of the 1916 season f.o.b. the manufacturing area, no commission above the maximum price established for the given manufacturing area is permitted.

(10) In case of purchases of Russian cotton of the 1916 season on the spot, in central Asia or the Caucasus, the manufacturer, cotton dealer, or other purchaser is permitted to pay the middlemen,

charged with the purchase, a commission in addition to the maximum price for the given area not exceeding 1 per cent, including the Del Credere Commission and all other costs, with the exception of 5 copecks per pud for broker's fee.

(11) Other details regarding the manner of settlement of accounts, insertion of conditions in the contract, their execution, the order of reception and delivery of goods, etc., are determined by the Committee for the control of the supply of raw materials to cotton mills.

II. Any person found guilty of contravening or failing to comply with the provisions of the present Ordinance, or conspiring to evade this Ordinance is liable, in virtue of Art. 7 of the rules relating to the supply of raw materials to cotton mills and wool factories, to imprisonment for a term not exceeding one year and four months.

(Torgovo-Promishlennaya Gazeta, 8th December 1916.)

APPENDIX XIII

DECREE of the Government, dated 7th July 1916, relating to the registration and distribution of rawhides and leather goods.

1. For the purpose of coördinating measures regarding the utilization of rawhides and finished leather goods for the needs of the army, the general control over their registration and distribution is concentrated in the Committee for the Leather Industry.

2. All owners of rawhides and skins, including leather manufacturers, and persons holding rawhides and skins in pledge, or in custody, are required immediately after the publication of the present Decree to supply the Committee for the Leather Industry with information as to the actual stocks of raw material held and its categories. The above-mentioned stocks of raw material may be disposed of without any special permit from the Committee at prices not exceeding those established by the Minister of Commerce and Industry; wholesale traders and leather manufacturers will give monthly information to the Committee of the amount of raw material sold by traders and purchased by manufacturers during the said period, stating the category of material, as well as the persons from whom it was purchased (in the returns of the manufacturers) or to whom it was sold (in the returns of traders).

3. With regard to public slaughterhouses in European Russia, with the exception of those of the Ministry of Agriculture and of the Army Supply Department, which remain under the direct control of the Committee for the Leather Industry, the exclusive right of purchase and collection of rawhides of cattle, calf skins excepted, and of horses, colt skins excepted, and of their distribution amongst the tanneries, is entrusted to the All-Russian Union of Zemstvos, which distributes the hides in accordance with instructions received from the Committee for the Leather Industry.

Remark 1. The contracts of the War Department for the collection of rawhides at the front—for the northern front with the All-Russian Association of Tanners, for the other fronts with the All-Russian Union of Zemstvos—remain in force, whereby the distribution of rawhides collected at the fronts is carried out according to instructions of the Committee for the Leather Industry.

Remark 2. The term "calf skins" shall mean skins weighing not over 11 puds per hundred of dry, unsalted skins. "Colt skin" shall mean skins weighing not over 12 puds (4 cwt.) per hundred of dry, unsalted skins.

4. The All-Russian Union of Zemstvos is required to take all measures necessary for the preservation of the purchased and collected rawhides, as well as for their registration.

5. All leather manufacturers producing tanned or dressed leather goods are required as long as the War lasts or until the repeal of the present Decree, to manufacture only such kinds of leather goods as are demanded by the army, and to an amount corresponding to the maximum output of their respective factories.

Remark. Leather manufacturers whose factories, owing to their technical equipment, are unable to manufacture such leather goods as are required for the army, or whose mixed technical equipment is adapted to the output of various classes of goods, may continue to produce goods other than for army needs, but subject to a special permit of the Committee for the Leather Industry and provided that such manufacture be not detrimental to the production of army goods.

6. Leather manufacturers are required to take over from the Committee for the Leather Industry or the All-Russian Union of Zemstvos, according to the orders received by them, raw materials for manufacturing goods at prices not exceeding those fixed by the Minister of Commerce and Industry for each category separately.

7. The Committee for the Leather Industry and the All-Russian Union of Zemstvos may in case of necessity sell rawhides to the leather manufacturers instead of merely issuing rawhides to them to be dressed.

8. Leather manufacturers who have received rawhides for dressing are required to deliver them as dressed leather to the institutions from which they had received them within the following periods:

Soft goods within	5 months
Hard goods within	8 months
Dressed (tawed) goods within	2 months

reckoned from the date of the delivery of the rawhides to the tannery.

Remark. The delivery of hides for dressing, and the reception of

finished goods, are carried out according to rules laid down by the Committee for the Leather Industry.

9. Rawhides not taken over and removed by the consignee within a week from the date of their arrival by rail must be requisitioned and transferred to the Committee for the Leather Industry.

10. All hides and skins tanned and dressed in the factories in the Russian Empire are registered by the Committee for the Leather Industry, which distributes them amongst the firms and organizations working for national defense.

Remark. Stocks of calf and colt skins, not exceeding 5 Russian pounds (4.5 English pounds), skibers, dressed camel and pig skins, kid skins, colored morocco, lacquered leather, tawed glove-leather, and chamois-leather, as well as strips and cuttings of all kinds of leather not exceeding two square vershok (6 sq. inches) stored in factories at the day of issue of the present Decree, may be temporarily sold to private purchasers pending alteration of this Decree.

11. All private trade in tanned or dressed hides or skins, whether of whole skins or parts of skins, or of skins cut to a certain pattern, with the exception of the categories listed in the Remark to Art. 10, is prohibited from the date of the publication of this Decree.

12. All owners and holders in pledge or trust of tanned or dressed hides and skins, whether whole or parts, or cut to pattern, with the exception of the categories enumerated in the Remark to Art. 10, are required within a month from the date of publication of this Decree to furnish the Committee for the Leather Industry (51, Ekateringofsky, Petrograd) with exact information about their actual stock of leather material according to categories.

On receipt of this information the Committee for the Leather Industry at the earliest opportunity:

(a) will either distribute the goods amongst the firms and organizations working for national defense;

(b) or give the owners a permit to sell the goods to firms and organizations working for national defense, or to private traders;

(c) or take possession of the goods, paying to the former owner, pending the final taking over, 50 per cent of the value of the goods at fixed prices, and in the absence of such prices at catalogue prices (of the firm) or at local market prices.

Remark. (1) The term "actual stock" covers all leather goods stored in trading houses, workshops, stores (leased, owned, or municipal), deposited as security in banks, stored at railway stations, wharves, in ships, and in transit by ordinary methods of transport. (2) The taking over of goods is carried out by order of the Committee through its delegates or through special local commissions. Goods not accepted by the Committee are returned to the owners and the money paid for them is accounted as payment for goods definitely accepted.

The valuation of goods is made by the Committee's special valuation Commission.

13. Any person found guilty of contravening the provisions of Articles 2, 5, 6, 10, 11, and 12 of this Decree is liable to a penalty in conformity with Art. 6 of the Law of 19th October 1915.

14. Leather goods concerning which no declaration has been made to the Committee for the Leather Industry within a month are, if discovered, liable to requisition at 50 per cent of the fixed prices.

15. Payment for leather goods delivered in conformity with Articles 12 and 14 should not exceed fixed prices.

16. Finished leather goods and tanning materials which have not been claimed at the railway station to which they were consigned within a fortnight from the date of their arrival are liable to be requisitioned and handed over to the Committee for the Leather Industry. Station masters are required to inform the Committee for the Leather Industry by telegram of such goods.

17. The transport of finished leather goods is carried out only upon personal bills of lading issued in accordance with orders given by the Committee for the Leather Industry.

18. In order to regulate purchases of tanning materials and chemicals, the All-Russian Association of Tanners is given the exclusive right to purchase them. The purchase of these materials and their distribution amongst factories working for national defense is carried out according to instructions of the Committee for the Leather Industry.

19. Special Regional Commissions are established to carry out and supervise the execution of orders and measures of the Committee for the Leather Industry.

The composition of these Commissions and their competence are determined by Regulations sanctioned by the Chairman of the Special Council for Defense in consultation with the Minister of Commerce and Industry.

20. From the date of entering into force of the present Decree all orders of local authorities regarding the transport and utilization of raw leather and finished leather goods are canceled.

The original bears the inscription:

Confirmed. 6th July 1916.

(Signed)

GENERAL SHUVAEV,
Minister of War.

PRINCE SHAKHOVSKOY,
Minister of Commerce and Industry.

APPENDIX XIV

DECREE relating to the Regional Leather Commissions.

1. With a view to the successful discharge by the Committee for the Leather Industry of the duties entrusted to it, and to permit of a closer supervision of the execution of the plans devised by the Committee, special Regional Leather Commissions are established in the principal centers of the leather industry, dealing respectively with certain areas, as follows:

(1) the Petrograd Commission: provinces of Petrograd, Esthonia, Livonia, Olonetz, Novgorod, Pskov, Vitebsk, and Mogilev;

(2) the Moscow Commission: provinces of Moscow, Vladimir, Ryazan Tula, Orel, Kaluga, Smolensk, Tver, Yaroslav, Kostroma, Vologda, and Archangel;

(3) the Nizhni-Novgorod Commission: province of Nizhni-Novgorod;

(4) the Kazan Commission: provinces of Kazan and Simbirsk;

(5) the Vyatka Commission: province of Vyatka;

(6) the Kiev Commission: provinces of Kiev, Podolia, Volhynia, Minsk, Chernigov, and Poltava;

(7) the Kharkov Commission: provinces of Kharkov, Kursk, and Voronezh;

(8) the Odessa Commission: provinces of Kherson, Ekaterinoslav, Bessarabia, and Taurida;

(9) the Rostov-on-Don Commission: territories of Don and Kuban, provinces of Stavropol, and Astrakhan;

(10) the Saratov Commission: provinces of Saratov, Samara, Penza, and Tambov;

(11) the Perm Commission: provinces of Perm, Ufa, Orenburg, and territories of Ural and Turgai;

(12) the Tiflis Commission: provinces of Tiflis, Baku, Elizabetpol, Erivan, the Black Sea province, and the territories of Terek, Daghestan, and Kars;

(13) the Western Siberia Commission;

(14) the Eastern Siberia Commission.

Remark. If necessary, the Committee for the Leather Industry may decide to transfer particular provinces from the jurisdiction

of one of the above-mentioned Regional Commissions to that of another.

2. The Committee for the Leather Industry may submit proposals for the establishment of commissions in other places than those enumerated in Art. 1, when, owing to circumstances, the Committee deems it necessary.

3. The Committee for the Leather Industry may also open its own trade establishments (stores, workshops, etc.) in all parts of the Russian Empire, including the zone of the front.

4. Each of the Leather Commissions enumerated in Art. 1 of this Decree is presided over by a chairman, appointed by the Chairman of the Committee for the Leather Industry, and is composed of representatives of the local Labor Inspectorate, the Supply Department of the Ministry of Agriculture, the All-Russian Unions of Zemstvos and Municipalities, the War Industries Committee, the local control committee for the manufacturing of army footwear and equipment, a representative of the All-Russian Society of Tanners, a representative of the leather industry, and a representative of the leather trade.

Remark 1. Representatives of institutions and public organizations are appointed by those bodies respectively; the representatives of the leather industry and leather trade are chosen by the Chairman of the Commission.

Remark 2. In case of the absence of a member of a Commission, a deputy is appointed or elected in his place.

5. Each Commission elects one of its members as Assistant Chairman to replace the latter when required.

6. The Committee for the Leather Industry for the whole Russian Empire and the Regional Commissions on behalf of the Committee for their respective areas are empowered:

(1) to inspect all leather factories, works, stores, and workshops, examine their books and documents, and take copies or extracts of documents as required;

(2) to appoint their agents to factories for the registration of their respective output and the reception of the manufactured leather goods.

7. The Regional Commissions are especially concerned with: the registration of the output of leather factories of their respective

areas, the distribution of the manufactured leather goods among local organizations and workshops, the supply of the army in conformity with directions given by the Committee for the Leather Industry, the organization of the supply of hides and tanning and other materials to leather factories, the preliminary discussion and report to the Committee for the Leather Industry on questions relating to requisitions, the supervision of the employment of leather goods and of their sale at prices not exceeding the maximum prices, and the general supervision over the respective areas to secure that all decisions as regards the leather industry are carried out.

8. Further details regarding the competence and limits of power of the Commissions will be determined by the Committee for the Leather Industry.

9. The Chairman of each Regional Commission becomes *ex officio* a member of the nearest Regional Industrial Council.

10. The Chairman of a Commission may convene special conferences under his chairmanship in any locality situated in the area of the Commission to deal with questions within the competence of the Commission, such conferences to be chiefly composed of persons enumerated in Art. 4 of the present Decree.

11. The meetings of a Commission are convened by decision of the Chairman or on the request of not less than three members of the Commission.

12. The questions to be discussed are submitted to the examination of the Commission by decision of the Chairman, or on the request of not less than three members, or by instruction of the Committee for the Leather Industry.

13. Questions are decided by a simple majority of votes. The Chairman has a casting vote.

14. When the Chairman disagrees with the decision of the Commission, he is authorized to submit the question with his report thereon to the decision of the Committee for the Leather Industry.

15. A secretary and a staff of officials are placed at the direct disposal of the Chairman.

16. The necessary expenditure of the Commissions on the salaries of the personnel and on traveling expenses are defrayed by the Committee for the Leather Industry.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1916, No. 31.)

APPENDIX XV

REGULATIONS relating to the Committee for the Control of the Leather Industry, dated 19th October 1916.

In virtue of the decision of the Council of Ministers sanctioned by H. M. on 19th October 1916 in accordance with Art. 87, of the Fundamental Laws (*Svod Zakonov*, vol. I, part I, ed. 1906), amending the Regulations relating to certain measures for the supply of raw materials to leather factories and undertakings manufacturing leather goods, sanctioned by H. M. on 19th October 1915 (*Sobranie Uzakoneni*, Art. 2311), it has been enacted as follows:

1. The coördination of measures for the utilization of raw materials, leather goods, tanning, and other materials, required by the leather industry, is concentrated in the Committee for the Leather Industry.

2. The Chairman of the Committee for the Leather Industry is selected and appointed by the Minister of Commerce and Industry. The Committee consists of:

(a) members of the Departments of Commerce and Industry, War (Army Supply Department, Artillery, and Technical Sections), Navy, and Agriculture;

(b) representatives of public organizations by election or by invitation of the Committee, in both cases with the sanction of the Minister of Commerce and Industry;

(c) representatives of the trade and industry elected by their respective organizations, designated by the Minister of Commerce and Industry; and

(d) representatives of separate undertakings by invitation of the Minister of Commerce and Industry.

Moreover, private persons whose participation in the Committee is deemed useful may be either elected by the said committee subject to the sanction of the Minister of Commerce and Industry, or appointed by him.

3. The Committee for the Leather Industry is empowered:

(a) to determine the scales of maximum prices at which dressed and undressed hides and skins, leather goods, and tanning, and other materials, required by the leather industry, may be sold;

(b) to distribute the stocks of raw materials, leather goods, tanning, and other materials, required by the leather industry, in conformity with the needs of the army and navy, and in case of necessity and at the demand of the Department for War allot the said goods to the exclusive needs of the said Departments;

(c) to purchase raw materials, leather goods, and other materials, required by the factories, so that these goods shall be consigned to the Committee, which is to distribute them amongst factories and undertakings;

(d) to supervise the execution of the Regulations as to the sale of the above-mentioned goods and materials (Par. *a*) at prices not exceeding the maximum prices;

(e) to inspect the leather factories, tanneries, workshops, and stores, demanding all necessary books and documents and taking copies or extracts of documents required; to appoint agents to the factories for the registration of their output, and when the requisition of the above-mentioned (Par. *a*) goods is under consideration, to place a preliminary embargo upon such goods as are intended for requisition;

(f) to establish Regional Leather Commissions and depots in various places of the Empire;

(g) to acquire rights of property including the right of ownership and other rights to real estate, enter into agreements, and sue and be sued in Courts of Law; and

(h) to establish in conformity with rules confirmed by the Minister of Commerce and Industry, subject to limits fixed by him, a special tax to be imposed on behalf of the Treasury upon the sellers and purchasers of leather goods.

Further details relating to the competence, powers, and composition of the Committee and its institutions and to the procedure to be followed in expending credits granted to the Committee and in accounting for the expenditure are determined by Regulations concerning the Committee sanctioned by the Minister of Commerce and Industry in consultation with the Minister of War, whereby these Heads of Departments decide as to the number of Regional Leather Commissions which are to be established, and the places and areas in which they shall operate.

4. Credits necessary for the administrative expenses of the Com-

mittee for the Leather Industry and its institutions are placed at the disposal of the Minister of Commerce and Industry from the cash balance of the Treasury, as extraordinary extra-budget credits, by virtue of Art. 18 of the Regulation as to the examination of the State Budget and the expenditure of extra-budgetary credits by the Treasury (*Svod Zakonov*, vol. I, part 2, ed. 1906), and in conformity with the Regulations of the Council of Ministers sanctioned by H. M. on 17th January 1915 as to the manner of granting extraordinary credits to the Civil Departments for war-time requirements.

5. Credits required by the Committee for the Leather Industry in connection with the purchase, manufacture, and resale of raw materials, leather goods, and other materials needed by the leather industry, are appointed and granted in the manner provided in the previous article.

6. At the winding up of the Committee for the Leather Industry, the cash balance of credits granted for the operations of the Committee, together with the accrued profit if any, and any sums granted for the administrative expenses of the Committee and its institutions which have not been expended, are returned to the Treasury.

7. The Minister of Commerce and Industry is responsible for fixing prices at which leather goods, and tanning and other materials required by the leather industry may be sold. Similarly the Minister of Commerce and Industry is to decide on general and special requisitions of leather goods, and tanning, and other materials required by the leather industry.

8. The Minister of Commerce and Industry in consultation with the Minister of War may:

(a) issue ordinances concerning the registration and utilization of raw materials, dressed hides and skins and tanning materials, and the regulations of the leather trade and industry;

(b) sanction regulations concerning the carrying out of general and special requisitions stipulated in Article 7.

9. The Minister of Commerce and Industry in addition to the powers given him by Articles 7 and 8 is empowered personally or through the Committee for the Leather Industry:

(a) to demand information as to stocks and consumption of raw

materials, leather goods, and tanning and other materials required by the leather industry, from persons, societies, or banks trading in the above goods or possessing leather factories or undertakings manufacturing boots and shoes and other manufactured goods;

(b) to check this information by demanding the production of trade books and other necessary documents; and

(c) to declare null and void such contracts as had been concluded previous to the fixation of the maximum prices (Art. 7) and which had proved to be inadmissible in view of these prices.

10. Persons and associations that have assumed obligations to supply raw materials and leather goods, and tanning and other materials required by the leather industry, are free from any responsibility if unable to discharge these obligations in consequence of being required to meet demands based upon this Regulation.

11. Any person found guilty of concealing stocks of raw materials, leather goods, and tanning and other materials needed by the leather industry; of refusing to supply information demanded in virtue of Art. 9, Par. *a*, of supplying false information or refusing to produce trade books and other documents connected with the business (Art. 9, Par. *b*); or of contravening the Ordinances issued by the Ministers of Commerce and Industry and War in consultation (Art. 8); is liable to imprisonment for a term not exceeding one year and four months. Any person contravening ordinances requiring raw materials, leather goods, and tanning and other materials necessary to the leather industry to be sold at prices not exceeding those fixed in conformity with Article 7, or found guilty of conspiring to evade the execution of ordinances as to the maximum prices for the above-mentioned raw materials and goods, is liable to the same penalty.

Cases arising in connection with this article are tried by the Regional Courts of Law.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1916, No. 44.)

APPENDIX XVI

DECREE of the Minister of Commerce and Industry, dated 2nd April 1917, relating to the supply of raw materials to leather factories.

1. All owners of rawhides and skins of various categories (cattle, horse, and camel hides), as well as persons holding them in pledge or trust, are required to supply information as to the hides and skins held by them, within a month from the date of their receipt, to persons and institutions appointed for each locality by special notification of the Regional Committee, and to deliver such hides and skins at maximum prices at the first demand of these persons and institutions.

2. All rawhides and skins imported into European Russia and Siberia are to be consigned in accordance with orders of the Central Committee in the name of the respective Regional Committee with the exception of raw materials purchased previous to 1st April 1917 by the All-Russian Association of Tanners. These latter raw materials are to be sent in the name of the Association direct to individual manufacturers in European Russia with the knowledge of the Central Committee and on condition that the Association shall inform the Regional Committees of all such consignments.

3. The collection, preservation, storage, consignment, and registration of rawhides and skins of the above categories are to be effected:

(a) at slaughter and salting establishments of the Ministry of Agriculture—by the Administration of such establishments;

(b) on the Northern front—by the All-Russian Association of Tanners;

(c) on all other fronts—by the All-Russian Union of Zemstvos;

(d) in the Caucasus—by the Leather Section of the Caucasian Regional Administration of the Army Supply Department.

The distribution of the stocks of leather amongst the Regional Committees is carried out by orders of the Central Leather Committee.

4. Owners are to convey hides and skins belonging to them to the collecting centers. In case of failure to comply with this obligation

the local Committee may transport such goods at the expense of their owners.

5. Leather factories are required to take over raw materials for tanning or dressing from the Regional Committees at the maximum prices, when no mutual agreement has been reached. The manufacturers are responsible for the preservation of the raw material sold or handed over to them for tanning or dressing, as well as for the quality of the work.

6. Leather manufacturers who have bought or received rawhides and skins for tanning or dressing are required to deliver them within the following periods:

Soft goods within	5 months
Hard goods within	8 months
Dressed (tawed) goods within	2 months

7. Leather manufacturers may obtain raw materials for tanning or dressing only from their Regional Committees.

8. All hides and skins dressed within the country, as well as hides and skins imported from abroad, are registered and distributed by the Central Committee among the organizations and institutions supplying the army, the industry, and the public.

9. On the first and not later than the tenth day of each month all tanners are required to supply the Regional Committees, in a form drawn up by the Central Committee, with data as to the raw materials and dressed leather received and used.

10. All owners and holders of hides and skins dressed in Russia or imported from abroad, as well as persons holding them in pledge, all organizations, factories, and workshops which have received such goods for the purpose of manufacture, and all State depots, are required to supply the Regional Committees not later than the tenth day of each month with exact data as to their actual stocks of leather goods.

11. Goods belonging to private persons and institutions concerning which no data are forthcoming, are liable to requisition at prices 25 per cent below those fixed by the Valuation Commission and not exceeding the maximum prices.

12. The transport of any leather goods may be effected only on personal bills of lading and with special permits of the Regional Committee.

13. All hides and skins sent to the respective regions are addressed to the Regional Committee with the exception of the goods shipped by the All-Russian Association of Tanners.

The consignment of hides and skins from the region is carried out only upon orders delivered by the Regional Committee.

14. A tax in addition to the maximum price may be imposed upon the purchaser on the delivery of goods in order to cover cost of administration.

(Torgovo-Promishlennaya Gazeta, 8th April 1917.)

APPENDIX XVII

DECREE of the Provisional Government, dated 21st April 1917, relating to the monopoly of leather.

1. All hides and skins of cattle, horses, and camels, whether raw or dressed, available at present in the country, as well as those which may hereafter be procured in European and Asiatic Russia and on the army fronts, are handed over to the State.

2. Measures for the utilization of leather for the needs of the army, of industry, and of the public are carried out through the Central and Regional Committees appointed to deal with leather.

3. The Central Committee is composed of 4 groups:

- (1) 7 representatives of public organizations;
- (2) 7 representatives of Government Departments;
- (3) 7 representatives of the leather, footwear, and saddleries industries and trade;
- (4) 7 representatives of the Regional Committees.

4. The Central Committee shall:

(a) draft a scheme for the distribution of raw materials among provinces and regions and for the supply of dressed hides and skins to the army and to the industry working for national defense.

(b) determine the maximum prices for leather goods, for tanning and other materials required by the leather industry, and for manufactured leather goods;

(c) ascertain the needs of the leather industry and find means to satisfy them;

(d) permit and promote the import of raw and dressed hides and skins, footwear, and saddlery from foreign countries;

(e) acquire property;

(f) coördinate and control the activity of Regional Committees.

5. A Regional Committee is established in every province and territory.

6. The Regional Committees are entrusted with:

(a) the organization of the collection of raw materials in a particular region, and their distribution according to the scheme established by the Central Committee;

(b) the supervision of the carrying out of regulations relating to the sale of leather goods and materials;

(c) the inspection and control of the tanneries, leather factories, workshops, stores, and undertakings;

(d) the distribution of dressed leather goods;

(e) the registration of the actual stocks of raw materials and manufactured goods;

(f) the timely supply of leather and leather goods to industrial undertakings;

(g) the sequestration and requisition of hides and skins in case of necessity.

7. The funds required to meet the expenditure for the purchase of rawhides and skins and for the general administrative expenses of the Committee are defrayed by the Treasury.

(*Ukazatel Pravitelstvennikh Rasporyazheni*, 1917, No. 16.)

APPENDIX XVIII

DECREE relating to the Committee for the control of the Paper Industry, dated 20th April 1916.

1. The Committee for the Paper Industry and Trade is constituted under the chairmanship of a person appointed by the Minister of Commerce and Industry. Its members are :

(a) officials of the Ministry of Commerce and Industry and of the Ministry of Transport, as well as of other Departments in accordance with special agreements upon the subject between the Heads of these Departments and the Minister of Commerce and Industry ; and

(b) representatives of corresponding branches of this industry and trade elected by their respective organizations, as well as representatives of publishing firms and establishments.

2. Persons from whom useful information may be obtained may also be invited by the Chairman to the meetings of the Committee.

3. The Committee is empowered :

(a) to ascertain the maximum prices at which the sale of raw materials and semi-manufactured and manufactured paper goods may be authorized ;

(b) to ascertain the output of the paper mills and their stocks of raw materials and semi-manufactured and manufactured goods, as well as the possibility of increasing their output and adapting them for the manufacture of paper needed by the State ;

(c) to ascertain the amount of paper goods that each concern is able to manufacture ;

(d) to determine the order in which State and private orders shall be executed ;

(e) to determine the prices to be fixed for such orders ;

(f) to distribute stocks of raw materials and semi-manufactured goods among undertakings, taking account of the orders given by the Government ;

(g) to decree a compulsory sale of raw materials and semi-manufactured goods to factories and mills executing Government orders at fixed prices ; and to purchase in case of necessity raw materials

and semi-manufactured goods, arranging that all consignments of goods shall be addressed to the Committee which is to distribute them amongst the mills;

(h) to discuss the requisition of raw materials, semi-manufactured and manufactured goods where owners evade or refuse to carry out the orders of the Government on the terms or to the extent required, and to submit schemes for carrying on such sequestered undertakings;

(i) to supervise the execution of schemes for the sale of raw materials and semi-manufactured and manufactured paper goods at prices not exceeding the fixed maximum prices as well as the execution of orders received from the Government;

(j) to appoint representatives to the Regional Committees;

(k) to acquire rights of property, including that of ownership and other rights to real estate, to sue and be sued in Courts of Law;

(l) to impose a special tax, paid by the sellers and purchasers, upon raw materials and manufactured goods in conformity with rules sanctioned by the Minister of Commerce and Industry and subject to limitations determined by him; which tax is intended to meet the expenses incurred by the Committee in the fulfilment of its present duties.

In conformity with the powers given to the Committee, the Minister of Commerce and Industry may:

fix prices at which raw materials and semi-manufactured and manufactured goods are to be sold; decide partial and general requisitions of raw materials and semi-manufactured goods and sequester in agreement with the Chairman of the Special Council for Defense undertakings for the manufacture of semi-manufactured and manufactured paper goods, determining the method of carrying on the sequestered undertakings; demand from private persons, societies, or banks information as to stocks and the amount of raw materials, semi-manufactured and manufactured paper goods consumed, as well as various data, check these data from trade books and other documents demanded from the undertakings, and declare null and void contracts which are incompatible with the established maximum prices.

Persons and societies who have, previous to the constitution of the Committee for the Paper Industry and Trade, undertaken obli-

gations as to the supply of raw materials and semi-manufactured paper goods, are relieved from any responsibility in case of inability to carry out their contracts in consequence of having to comply with demands based on the present Decree.

Chapter 14, Section 8, of the Criminal Code, is amended by a new, fifth sub-Section, approved by the Council of Ministers, dealing with infringements of the Decrees concerning certain measures for the improvement of the paper trade and industry, as follows:

Manufacturers or traders, commissioners and managers, owners and directors of undertakings, to which the Decree relating to certain measures for the improvement of the paper industry extends, found guilty of:

(1) concealing raw materials or semi-manufactured paper goods with the purpose of evading their obligations as to the distribution of their stocks amongst various undertakings, the sale of such stocks to mills and factories, the execution of government orders, or the requisition of raw materials or semi-manufactured or manufactured goods;

(2) failing to supply information or supplying incorrect information; or

(3) selling raw materials or semi-manufactured or manufactured paper goods at prices exceeding those fixed by the Minister of Commerce and Industry or concluding agreements based upon such prices in evasion of the present Decree;

are liable to imprisonment for a term from two months to one year and four months.

Cases dealing with transgressions of the provisions of this Decree are tried by the Regional Courts of Law.

(Torgovo-Promishlennaya Gazeta, 20th April 1916.)

APPENDIX XIX

DECREE of the Minister of Commerce and Industry of 27th July 1916.

In virtue of the decision of the Council of Ministers sanctioned by H. M. on 2nd May 1916 as to certain measures for the regulation of the paper industry and trade (*Sobranie Uzakoneni i Rasporyazheni Pravitelstva*, 1916, Art. 962), I order as follows:

I. The owners of paper mills, wood-pulp and cellulose mills, factories and undertakings manufacturing or consuming paper for their own needs, printing houses, lithographic establishments, bookbinders, publishers of periodical and nonperiodical publications, and firms and persons engaged in the paper trade, are required to supply upon demand to the Committee for the Paper Industry (Petrograd, Nevsky Prospekt, 15), not later than on the 30th day of each month succeeding the month of account, information as to prices, turnover, and balance in hand of paper, cardboard, wood-pulp, and cellulose.

II. The information stipulated in Section I shall be communicated to the Committee on registration forms drawn up by the Committee.

III. The provisions of Sections I and II extend to all undertakings with an average monthly consumption of paper or other produce liable to registration of not less than 500 puds.

IV. Anyone found guilty of contravening or failing to comply with this Decree is liable to imprisonment for a term not exceeding one year and four months in conformity with Section IV of the Decision of the Council of Ministers sanctioned by H. M. on 2nd May 1916 relating to certain measures for the regulation of the paper industry and trade.

(*Torgovo-Promishlennaya Gazeta*, 30th July 1916.)

APPENDIX XX

AVERAGE MONTHLY PRICES OF COMMODITIES,¹ 1914-1916

(In copecks per pud)

	January	February	March	April	May	June	July	August	September	October	November	December
Coal												
<i>Kharkov</i>												
1914	12.5	12.3	11.9	11.8	11.8	11.8	11.8	12.9	14.	14.	13.5	13.5
1915	13.5	13.5	15.5	15.5	15.5	15.5	15.5	19.	16.	16.	16.	16.
1916	14.5	14.5	14.5	14.5	14.5	16.	16.	19.5	18.5	19.3	19.3	19.3
Anthracite												
<i>Kharkov</i>												
1914	17.	17.5	16.	16.5	16.5	16.5	...	...	...	...	...	...
1915	...	...	...	...	22.	23.	32.	26.	42.	28.	29.	33.
1916	...	...	...	...	26.	26.	28.	28.	28.	29.	...	...
Coke												
<i>Kharkov</i>												
1914	26.	25.5	...	25.	24.	22.	...	...	52.	...	...	...
1915	...	...	...	...	27.	...	27.	30.	...	37.5	34.5	37.5
1916	37.	34.	34.	33.	34.	36.	34.	35.	40.	42.	43.	...
Crude oil												
<i>Baku</i>												
1914	36.	39.	39.	36.	34.	43.	40.	42.	35.	25.	...	31.
1915	28.	35.	41.	43.	41.	46.	48.	43.	44.	46.	47.	47.
1916	57.	49.	48.	48.	47.	48.	48.	48.	48.	...	...	47.
<i>Moscow</i>												
1914	63.	63.	63.	63.	58.	61.	62.	62.	62.	61.	60.	64.
1915	64.	74.	74.	48.	...	88.	100.	107.	119.	120.	120.	128.
1916	128.	...	92.	92.	92.	92.	92.	92.	92.	92.	92.	92.

¹ The prices quoted in this table are those officially registered on the open market. For certain commodities the prices ruling on two of the principal markets are given.

APPENDIX XX (Continued)

	January	February	March	April	May	June	July	August	September	October	November	December
Petroleum												
<i>Baku</i>												
1914	47.	48.	50.	47.	51.	59.	62.	59.	47.	35.	35.	40.
1915	36.	39.	51.	46.	45.	50.	52.	51.	45.	43.	53.	54.
1916	...	...	...	...	52.	58.	61.	97.	105.	...	112.	123.
<i>Moscow</i>												
1914	143.	140.	140.	140.	140.	145.	153.	168.	159.	148.	140.	185.
1915	190.	191.	193.	196.	198.	201.	203.	203.	203.	203.	208.	213.
1916	213.	213.	213.	228.	228.	235.	243.	250.	253.	268.	283.	283.
Wrought iron												
<i>Kharkov</i>												
1914	154.	156.	156.	156.	156.	156.	156.	156.	156.	161.	161.	161.
1915	161.	161.	173.	173.	173.	173.	188.	188.	188.	188.	188.	220.
1916	220.	243.	255.	255.	255.	255.	270.	270.	270.	270.	270.	270.
<i>Petrograd</i>												
1914	158.	158.	158.	158.	158.	158.	158.	158.	158.	158.	168.	168.
1915	168.	171.	181.	181.	181.	188.	188.	188.	188.	192.	207.	230.
1916	238.	260.	260.	260.	263.	254.	276.	310.	310.	...	...	...
Cast-iron												
<i>Petrograd</i>												
1914	93.	98.	98.	99.	95.	94.	94.	96.	94.	92.	96.	98.
1915	98.	100.	102.	102.	109.	110.	110.	130.	130.	130.	128.	125.
1916	131.	140.	145.	145.	125.	125.	125.	...	...	168.	168.	176.
<i>Kharkov</i>												
1914	65.	66.	66.	66.	66.	66.	66.	66.	66.	97.	97.	97.
1915	67.	68.	68.	68.	79.	79.	79.	79.	79.	79.	79.	79.
1916	79.	...	...	93.	104.	115.	145.	145.	145.	130.	130.	130.

January February March April May June July August September October November December

167.	167.	167.	167.	167.	167.	166.	166.	166.	166.
166.	168.	178.	178.	178.	179.	179.	179.	183.	201.
239.	261.	261.	247.	220.	220.	220.	220.	...	...

[illegible]

553.	545.	540.	510.	518.	524.	...	480.	...	530.	560.	640.
...	...	...	...	640.	650.	...	...	...	...	...	...
...	1,500.	1,500.	1,600.	...	1,700.	...	...	...	2,080.	2,105.	2,179.

1,460.	1,371.	1,348.	1,371.	1,352.	1,351.	1,370.	...	1,360.	...	1,007.	1,600.
805.	1,745.	1,657.	1,800.	...	2,200.	...	...	2,200.	2,800.	...	...
...	...	...	...	...	2,683.	2,600.	...	...	...	...	...

[illegible][illegible]

APPENDIX XXI

OUTPUT AND TRANSPORT OF MINERAL FUEL FROM THE DONETZ BASIN FOR THE PERIOD 1914-1917

(In millions of puds)

	OUTPUT				TRANSPORT			
	<i>1914</i>	<i>1915</i>	<i>1916</i>	<i>1917</i>	<i>1914</i>	<i>1915</i>	<i>1916</i>	<i>1917</i>
January	173.6	140.2	150.	154.1	128.3	117.	112.2	109.3
February	160.	137.	149.	143.4	119.8	94.2	106.6	89.3
March	170.	111.4	104.2	150.	123.5	100.7	119.7	102.9
April	110.	137.2	95.	121.	85.3	120.	109.6	105.7
May	151.	135.2	140.	127.5	113.3	121.1	121.7	90.1
June	150.1	129.4	147.2	127.	117.3	110.3	119.3	99.
July	111.	121.5	144.	119.	68.5	104.6	123.5	96.9
August	99.2	116.9	137.	110.	88.3	88.1	119.2	80.
September	133.	138.4	149.	...	105.8	74.8	112.4	...
October	135.	155.8	157.	...	105.5	80.7	104.9	...
November	157.1	158.3	171.	...	97.6	83.3	106.7	...
December	144.4	145.4	147.	...	111.8	101.5	105.3	...

APPENDIX XXII

NUMBER OF WORKMEN IN THE COAL MINES AND MONTHLY OUTPUT PER WORKMAN

	<i>Number of workmen</i>			<i>Average output per head</i>		
	<i>1915</i>	<i>1916</i>	<i>1917</i>	<i>1915</i>	<i>1916</i>	<i>1917</i>
	<i>(in thousands)</i>			<i>(in puds)</i>		
January	178.	208.	291.3	787.6	711.2	529.
February	175.	219.	291.6	782.9	680.4	491.8
March	155.	220.	283.8	718.7	473.6	528.5
April	179.	217.	285.9	766.5	437.8	423.2
May	175.	220.	276.	772.6	636.4	462.
June	165.	222.	278.	784.2	663.1	456.8
July	162.2	232.	274.	749.1	620.6	434.
August	165.	242.	268.	708.5	566.1	410.
September	190.	247.	...	728.4	603.2	...
October	206.	259.	...	756.3	606.2	...
November	209.1	270.	...	757.1	633.3	...
December	207.9	288.	...	699.4	510.4	...

APPENDIX XXIII

MONTHLY OUTPUT OF CRUDE OIL IN THE FOUR BAKU AREAS FOR THE PERIOD 1913-1917

	<i>(In millions of puds)</i>				
	<i>1913</i>	<i>1914</i>	<i>1915</i>	<i>1916</i>	<i>1917</i>
January	35.	35.5	31.1	27.3	33.3
February	31.5	31.2	28.1	25.3	28.7
March	34.3	33.8	31.2	27.1	31.5
April	34.2	31.1	28.	26.6	32.
May	35.	29.7	29.2	35.3	32.2
June	33.3	7.	28.7	29.9	..
July	29.8	15.9	30.5	25.1	..
August	26.	30.6	27.9	26.	..
September	30.1	31.3	27.	27.4	..
October	33.3	30.6	26.9	27.5	..
November	32.1	29.	26.3	24.9	..
December	35.2	30.3	27.9	26.	..

APPENDIX XXIV

MONTHLY SUPPLY OF COTTON TO RUSSIAN MARKETS IN 1913-1914 AND 1914-1915

1913-1914

	<i>Russian Cotton</i>		<i>Foreign Cotton</i>		<i>Total Supply</i>	
	<i>Thousands of puds</i>	<i>Percentage of the average supply for 5 years</i>	<i>Thousands of puds</i>	<i>Percentage of the average supply for 5 years</i>	<i>Thousands of puds</i>	<i>Percentage of the average supply for 5 years</i>
July	62	0.2	1,128	4.5	1,190	4.7
August	40	0.1	895	3.7	935	3.8
September	562	2.2	660	2.6	1,222	4.8
October	2,233	8.8	985	3.9	3,218	12.7
November	2,278	9.0	1,192	4.7	3,470	13.7
December	2,655	10.5	1,234	4.9	3,889	15.4
January	2,164	8.6	1,760	6.9	3,924	15.5
February	1,609	6.4	1,510	5.9	3,119	12.3
March	1,384	5.5	1,300	5.1	2,684	10.6
April	728	2.9	1,403	5.5	2,131	8.4
May	378	1.5	1,285	5.1	1,663	6.6
June	118	0.5	1,290	5.1	1,408	5.6
Total	14,211	56.2	14,642	57.9	28,853	114.1

1914-1915

	<i>Russian Cotton</i>		<i>Foreign Cotton</i>		<i>Total Supply</i>	
	<i>Thousands of puds</i>	<i>Percentage of the average supply for 5 years</i>	<i>Thousands of puds</i>	<i>Percentage of the average supply for 5 years</i>	<i>Thousands of puds</i>	<i>Percentage of the average supply for 5 years</i>
July	70	0.2	575	2.4	645	2.6
August	25	0.1	357	1.4	382	1.5
September	824	3.3	563	2.2	1,387	5.5
October	1,647	6.5	177	0.7	1,824	7.2
November	3,382	13.4	144	0.5	3,526	13.9
December	3,481	13.8	239	0.9	3,720	14.7
January	2,898	11.5	309	1.2	3,207	12.7
February	1,921	7.6	412	1.6	2,333	9.2
March	1,067	4.2	347	1.4	1,414	5.6
April	641	2.5	680	2.7	1,321	5.2
May	416	1.6	962	3.9	1,378	5.5
June	443	1.7	1,077	4.3	1,520	6.
Total	16,815	66.4	5,842	23.2	22,657	89.6

In addition to the above in July 1915—5,968 tons (373,000 puds) of Russian and 18,528 tons (1,158,000 puds) of foreign cotton reached the Russian markets; in August 1915—3,600 tons (230,000 puds) of Russian and 20,617 tons (1,237,000 puds) of foreign cotton.

Thus down to 1st September 1915 the supplies totaled 410,480 tons (25,655,000 puds) or 101.4 per cent of the average supply for the preceding period of five years. Of this total 278,688 tons (17,418,000 puds) or 68.7 per cent were Russian cotton, and 131,792 tons (8,237,000 puds) or 32.7 per cent foreign cotton.

APPENDIX XXV

FLUCTUATION IN THE AVERAGE MONTHLY WAGES OF A WORKMAN IN RUSSIA DURING THE PERIOD 1913-1916

<i>Branches of industry</i>	<i>Wages in paper rubles</i>			
	<i>1913</i>	<i>1914</i>	<i>1915</i>	<i>1916</i>
1. Industries connected with the working of stone	20.	19.5	20.5	30.2
2. Mining	22.1	21.2	22.	42.2
3. Metallurgical	29.7	31.8	41.6	67.7
4. Engineering	37.2	40.6	56.8	82.4
5. Timber and plywood	24.	28.3	33.2	48.7
6. Cotton manufacturing	17.2	17.4	22.9	33.6
7. Wool manufacturing	15.8	15.7	19.4	28.7
8. Silk manufacturing	20.2	16.3	21.1	29.2
9. Linen manufacturing	..	15.7	20.2	28.4
10. Mixed textiles	22.8	22.2	39.5	48.8
11. Paper	17.5	18.1	24.1	30.
12. Printing, engraving, etc.	42.7	43.1	47.6	66.8
13. Chemical	26.1	32.7	35.6	64.1
14. Food	17.6	17.9	21.4	35.2
15. Leather	22.4	26.5	34.2	49.3
	<hr/>	<hr/>	<hr/>	<hr/>
Average wage	21.7	23.	31.6	50.1

*Wages in terms of merchandise rubles
calculated on the basis of the
index-number of prices*

<i>Branches of industry</i>	<i>1913</i>	<i>1914</i>	<i>1915</i>	<i>1916</i>
1. Industries connected with the working of stone	20.	19.3	15.8	14.9
2. Mining	22.1	21.	16.9	20.8
3. Metallurgical	29.7	31.5	32.	31.9
4. Engineering	37.2	40.2	43.6	40.6
5. Timber and plywood	24.	28.	25.5	24.
6. Cotton manufacturing	17.2	17.2	17.6	16.6
7. Wool manufacturing	15.8	15.5	14.9	14.1
8. Silk manufacturing	20.2	16.1	16.2	14.4
9. Linen manufacturing	..	15.5	15.5	14.
10. Mixed textiles	22.8	21.9	30.4	24.
11. Paper	17.5	18.	18.5	14.8
12. Printing, engraving, etc.	42.7	42.6	36.6	32.9
13. Chemical	26.1	32.4	27.4	31.5
14. Food	17.6	17.7	16.5	17.3
15. Leather	22.4	26.2	26.3	24.3
	<hr/>	<hr/>	<hr/>	<hr/>
Average wage	21.7	22.8	24.3	24.7

APPENDIX XXV (Continued)

Branches of industry	Index-number of wages based on					
	paper rubles			merchandise rubles		
	(1913 = 100)					
	1914	1915	1916	1914	1915	1916
1. Industries connected with the working of stone	97	102	151	96	79	74
2. Mining	100	104	190	95	76	94
3. Metallurgical	107	140	218	106	107	107
4. Engineering	109	152	221	108	117	109
5. Timber and plywood	117	138	202	116	106	100
6. Cotton manufacturing	101	133	195	100	102	96
7. Wool manufacturing	99	122	180	98	94	89
8. Silk manufacturing	80	104	144	79	80	71
9. Linen manufacturing	100	122	180	100	100	90
10. Mixed textiles	97	173	214	96	133	105
11. Paper	103	137	171	102	105	84
12. Printing, engraving, etc.	100	111	156	98	85	77
13. Chemical	125	136	245	124	104	120
14. Food	101	121	200	100	93	98
15. Leather	118	152	220	116	117	108
	—	—	—	—	—	—
Average wage	106	145	230	105	111	113

APPENDIX XXVI

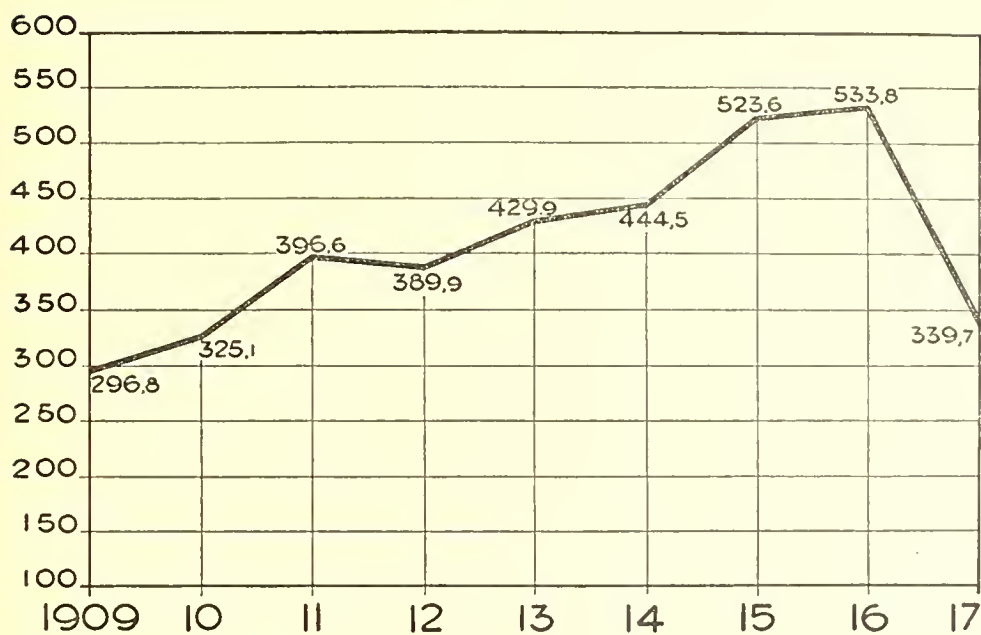
CHANGES IN THE COMPOSITION OF THE WORKING CLASS ACCORDING TO AGE AND SEX IN 1913-1917 (AS PERCENTAGES OF THE TOTAL FOR EACH GROUP) IN THE PRIVATE INDUSTRIES OF RUSSIA

<i>Branches of industry</i>	<i>1913</i>				<i>1914</i>				<i>1915</i>				<i>1st January 1917</i>			
	<i>Children</i>	<i>Adolescents</i>	<i>Women</i>	<i>Men</i>	<i>Children</i>	<i>Adolescents</i>	<i>Women</i>	<i>Men</i>	<i>Children</i>	<i>Adolescents</i>	<i>Women</i>	<i>Men</i>	<i>Children</i>	<i>Adolescents</i>	<i>Women</i>	<i>Men</i>
1. Cotton industries	1.3	9.	50.5	39.2	1.3	9.4	52.4	36.9	1.8	10.7	56.6	30.9	2.4	11.1	61.1	25.4
2. Wool industries	2.2	9.5	35.3	53.	2.1	10.2	37.4	50.3	3.1	11.6	40.6	44.7	4.5	12.7	41.8	41.
3. Silk industries	3.	11.3	55.2	30.5	2.6	11.4	56.3	29.7	4.1	13.6	65.7	16.6	5.	15.5	56.	23.5
4. Linen industries	4.	12.1	45.9	38.	4.7	13.	47.	35.3	5.1	14.8	49.9	30.2	5.8	15.3	52.5	26.4
5. Mixed textile industries	0.4	8.1	52.5	39.	0.6	7.2	57.9	34.3	1.4	7.5	64.7	26.4	2.1	9.	67.8	21.1
6. Paper industries	1.5	9.	26.6	62.9	1.6	8.6	27.5	62.3	1.4	11.6	30.2	56.8	5.8	16.5	29.5	48.2
7. Printing	4.7	17.3	8.1	69.9	5.1	17.9	8.4	68.6	6.4	20.1	10.8	62.7	..	..	..	..
8. Sawmills and plywood factories	0.5	7.3	4.6	87.6	0.5	8.1	5.7	85.7	0.9	11.	9.2	78.9	1.6	11.3	16.2	70.9
9. Iron and steel works	0.5	8.3	6.8	84.4	0.6	8.8	7.3	83.3	0.9	10.8	12.4	75.9	1.1	10.6	14.3	72.
10. Engineering industry	0.1	9.3	1.1	89.5	0.2	8.9	1.5	89.4	0.5	9.5	6.2	83.8				
11. Glass, china, and ceramic industries	5.7	9.7	13.6	71.	5.2	11.1	13.8	69.9	8.5	13.1	18.9	59.5	..	..	..	..
12. Manufacture of animal products	0.8	7.9	14.3	77.	0.5	8.6	16.2	74.7	0.9	9.7	22.8	66.6	1.8	10.5	26.2	61.5
13. Flour mills	0.1	6.	5.6	88.3	0.08	7.1	3.2	89.6	0.4	9.7	4.8	85.1	0.9	11.9	29.3	57.9
14. Sugar industry	0.1	7.1	14.8	78.	0.2	8.3	13.8	77.7	0.8	10.9	19.8	68.5				
15. Chemical industry	0.6	2.	2.8	94.6	0.2	2.1	3.2	94.5	0.3	4.3	9.	86.4	2.4	12.	32.5	53.1
16. Gunpowder and explosives	0.5	2.8	30.1	66.6	0.8	2.9	22.5	73.8	0.5	2.2	30.1	66.2	..	..	..	..

APPENDIX XXVII

Area under cotton in Turkestan in 1909-1917 in millions of deciatines

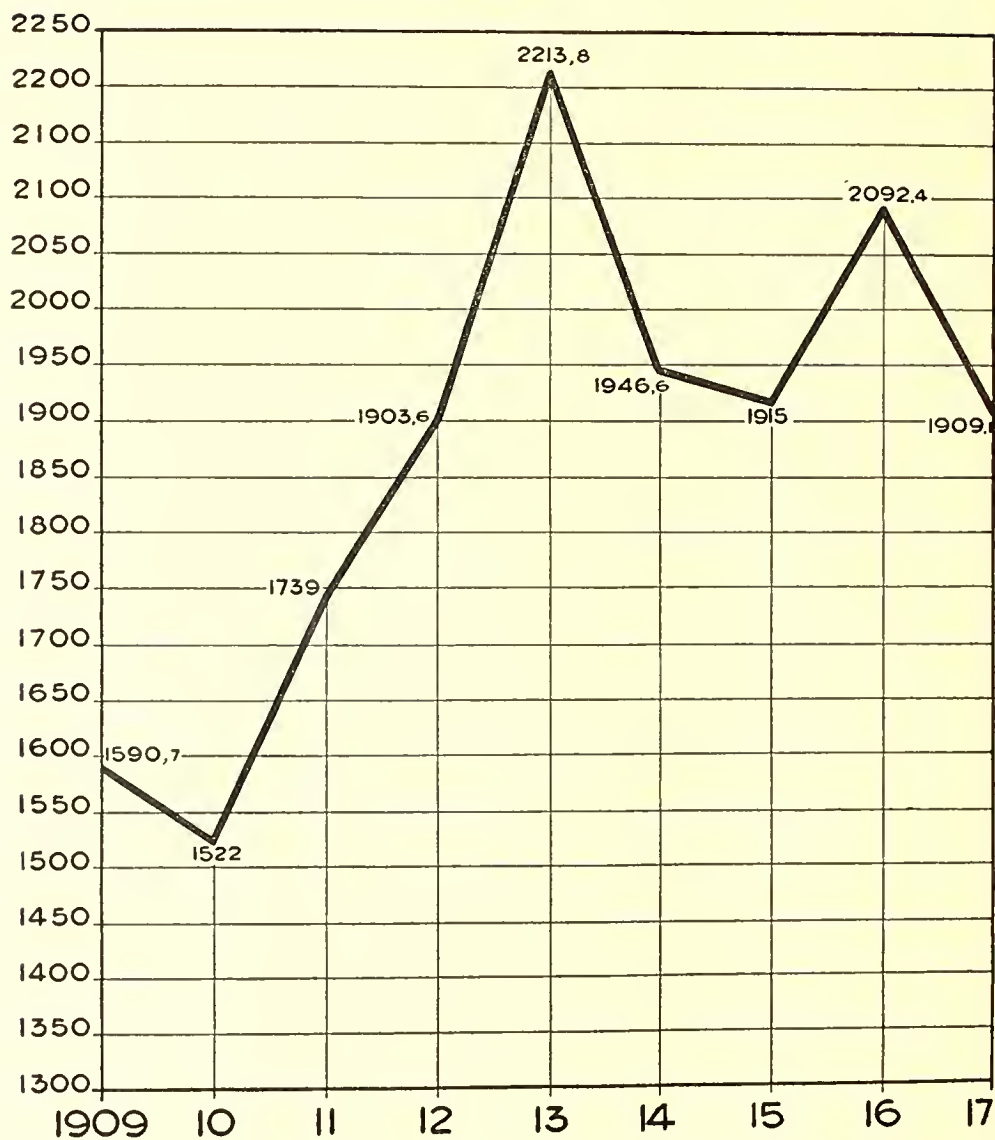
Diagram I



APPENDIX XXVIII

Output of coal in Russia in 1909-1917 in millions of puds

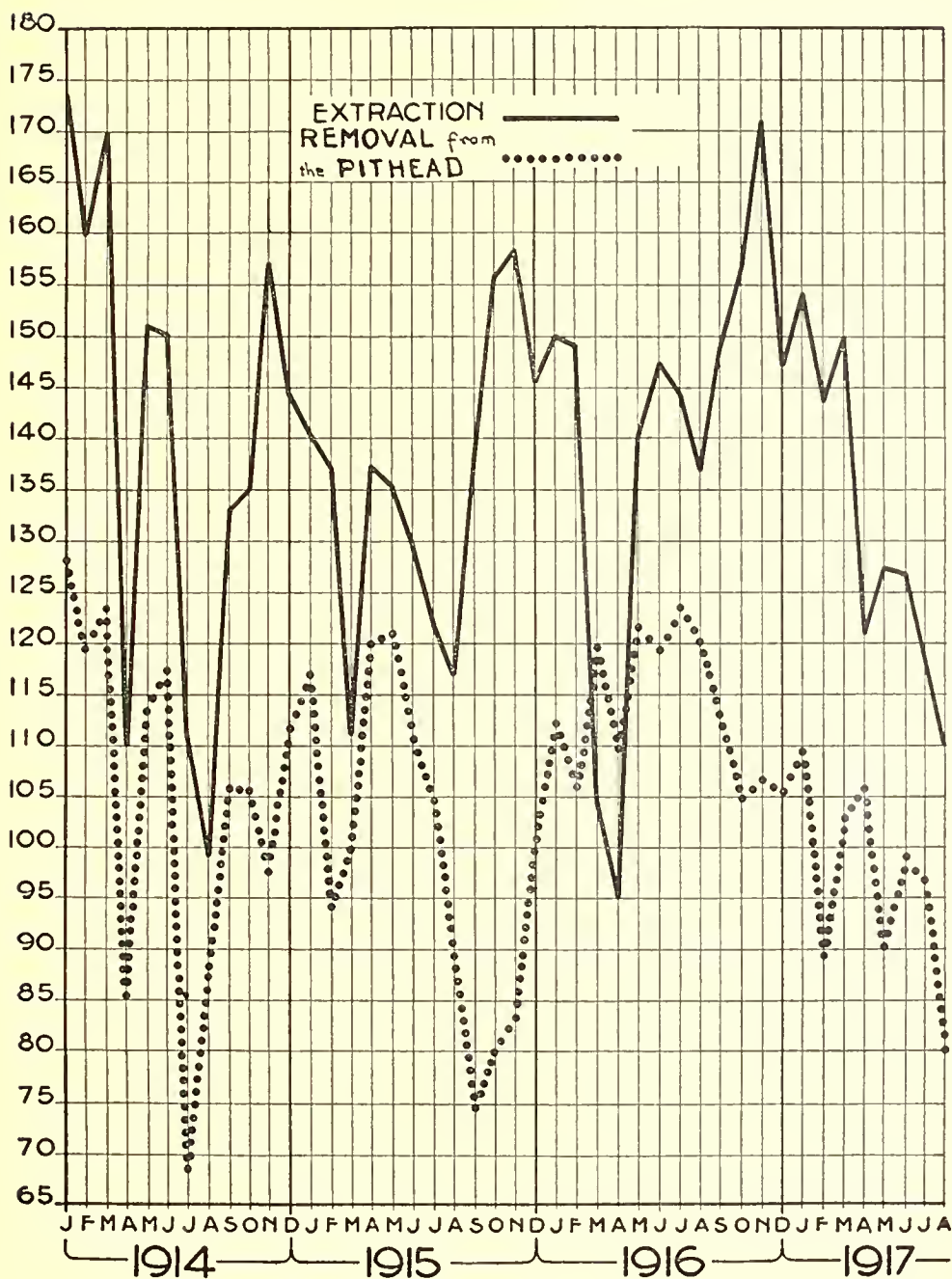
Diagram II



APPENDIX XXIX

Output and removal from the pithead of coal from the Donetz Basin in
1914-1917 in millions of puds

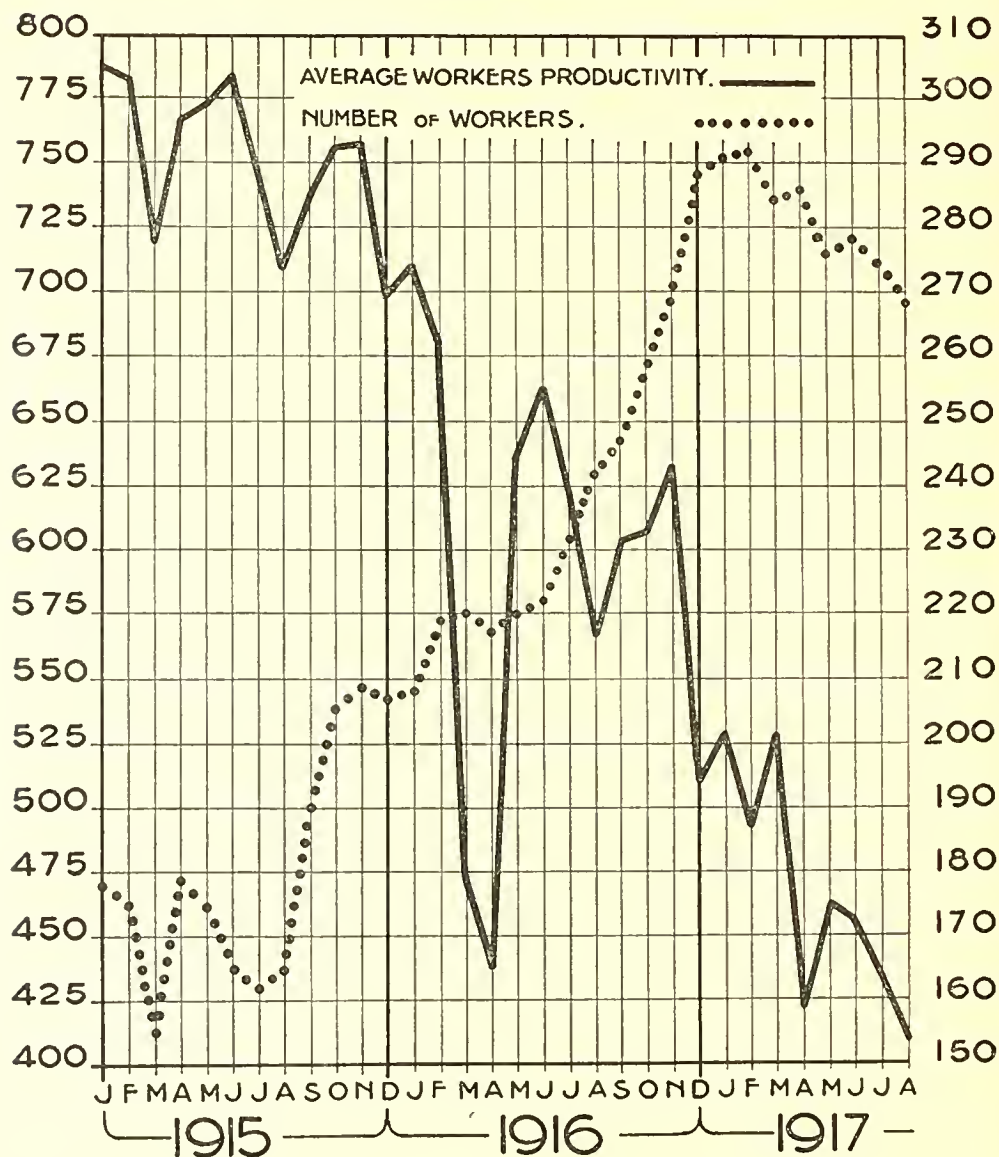
Diagram III



APPENDIX XXX

Average number (in thousands) of workers employed and average monthly output per head (in puds) in the mines of the Donetz Basin in 1915-1917

Diagram IV



APPENDIX XXXI

Output of petroleum in Russia in 1909-1917 in millions of puds

Diagram V



APPENDIX XXXII

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